PROJECT PLANNING IN INDIA

MRIDULA KRISHNA

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
INDRAPRASTHA ESTATE, RING ROAD, NEW DELHI-110002

FOR AND ON BEHALF OF

THE TRAINING DIVISION, DEPARTMENT OF PERSONNEL AND ADMINISTRATIVE REFORMS, GOVERNMENT OF INDIA

July, 1983

PRICE { Indian : Rs. 70.00
Abroad : £ 11.00 or $ 22.00

Printed at :
Swatantra Bharat Press,
423 Gali Jainian, Esplanade Road, Delhi-110006

FOREWORD

Economists have described projects as building blocks of development. Each long-term development plan, is a sum total of properly worked out practical and viable projects based on the principle of optimum utilisation of resources for the benefit of the people at large.

Despite its crucial importance, project planning has not received proper attention in most of the developing countries. In India also, its importance in the public sector was realised only 15 years after the heralding in of the planning process in free India. The process of its institutionalisation began with the setting up of the Bureau of Public Enterprises in 1965 and Project Appraisal Division and Public Investment Board in 1972. Various guidelines pertaining to different aspects of project planning were issued till middle of 70s.

There existed a gap of knowledge about this aspect of development planning in the country which the present monograph endeavours to bridge. Smt. Mridula Krishna, presently Joint Adviser in the Planning Commission, deserves our commendation for doing this monograph.

The monograph attempts to examine the processes and procedures of project planning at the national level in the country since independence. It contains relevant information regarding the planning machinery, organisational set-up, plan framework along with process of project formulation, etc.

The present monograph is the second in a series on bridging gap between theory and practice in public administration. This series of monographs is being brought out with the financial support from the Union Department of Personnel and Administrative Reforms.

It is hoped that it will be found useful by students and practitioners of public administration.

NEW DELHI
JUNE 7, 1983

(P.R. DUBHASHI)

PREFACE

This monograph deals with the problems and issues of national sector and project planning in India. Investment occupies central place in the formulation of planning strategies in developing countries. Its inadequate availability, however, is an important constraint in launching projects and programmes for rapid economic growth. The existing *per capita* income of majority is not sufficient for even subsistence living and hence generating investment funds through domestic savings and taxation is a very difficult task. The scarce availability and the multiple needs of investment funds, therefore, have compelled these countries for judicious investment decisions.

India, which belongs to the group of developing countries of the world, launched its First Five Year Plan for economic development in 1950-51. The three main characteristics of India's long-term plans are: (*i*) democratic planning, (*ii*) mixed economy, and (*iii*) decentralised planning. The public as well as private sectors are sought to play equally important roles and all investment takes place within the overall plan framework. The main objective of planning in India is to attain economic growth with social and redistributive justice and hence investment decisions are required to be based on social profitability and not financial viability. The Government of India have, therefore, accepted the need to evolve a scientific 'project planning' system within the plan framework. The major investment decisions are increasingly being scrutinised on the basis of social cost benefit analysis (SCBA) technique. There are genuine difficulties in strictly adopting the SCBA technique. One of them relates to communication gap between those who are required to identify and formulate the projects and those who are required to take investment decisions. To overcome this difficulty and also impart need to evolve scientific project planning system in the country, the Training Division of the Department of Personnel and Administrative Reforms, Ministry of Home Affairs, have taken a right step in sponsoring and conducting training

courses for government officers on 'Project Implementation, Monitoring and Evaluation' (PIME) at various research institutions in different parts of the country.

The present monograph discusses the issues and problems in two parts, *viz*., (*i*) national planning in India, and (*ii*) project planning in India. The first part deals with: (*a*) approach to planning, (*b*) planning machinery, (*c*) organisational set-up of Central Planning Commission, (*d*) plan framework, (*e*) formulation process, and (*f*) objectives, issues and nature of India's five year plans. The second part deals with mostly project planning in private sector and public sector, project planning history of the public sector projects and various stages of 'project cycle'—identification, formulation, appraisal and approval at the pre-investment stage. It also discusses the functions and composition of the Public Investment Board (PIB) which is responsible for taking investment decisions for the central sector projects in India.

There is a general feeling amongst project planners of developing countries that adoption/introduction of SCBA technique is a 'take it' or 'leave it' option and can be applied only in a perfect political and economic system which is generally absent in the developing countries. The present monograph aims at convincing these planners that scientific project planning is a gradual and continuous process which can be followed step by step as being done in India.

The first draft of this monograph was written during my assignment as Visiting Professor at the Project Planning Centre (PPC) for the Developing Countries, University of Bradford, UK, in January-July, 1979. I wish to record my thanks to Prof. David Edward and Prof. John McArthur, Director and Deputy Director of the PPC for suggesting and inspiring me to write a paper on India's experience in project planning within the overall plan framework. A brief outline of the paper was discussed in the staff seminar of the PPC and I have benefited extremely from the comments of the staff members. I am also thankful to Mr. Bevan Waide of the World Bank, Mr. Nicholas Stern of the University of Warwick, UK, and Prof. P.R. Panchmukhi and other friends for their comments on the first draft. It is my pleasure to acknowledge the kind assistance I received from the Training

Division of the Department of Personnel and Administrative Reforms, especially, the Joint Secretary, Shri Hari Mohan Mathur, for accepting the paper for publication as a monograph.

I also wish to record my thanks for the help I received from Shri V.K. Malhotra, my personal assistant.

The views expressed in the monograph, however, are my own.

PLANNING COMMISSION
NEW DELHI
FEBRUARY, 1983

MRIDULA KRISHNA
Joint Adviser

CONTENTS

National Planning

India is the seventh largest country of the world with an area of about 3.29 million sq. km. Its frontier extends to over 1500 km. and the coast line is of 5700 km. Its population of 660 million makes it the second largest populated country in the world. It is predominantly agricultural from which 70 per cent of the working population derive their livelihood. Despite its rich mineral resources of iron, ore, coal, bauxite, manganese ore, gypsum, limestone, etc., India is in the group of less developed countries (LDC) and its per capita GNP is only about $ 150. Its main problem of economic development relates to : (*a*) disguised unemployment and underemployment, (*b*) high rate of population growth, (*c*) inadequate domestic savings, (*d*) scarce capital and unlimited demand, and (*e*) need for capital inputs, etc.

India is a sovereign democratic republic with a parliamentary form of government, based on universal franchise, and a union of 22 federative states and nine centrally administered union territories, with the President as the head of the union, and the governors as the heads of the states. The President is selected by the elected members of both the houses of parliament and legislative assemblies of the states for a term of five years. The President is aided by the council of ministers (*i.e.*, the cabinet) with the prime minister as the head. The government policies are finally laid down by the cabinet which is collectively responsible to the parliament.

India was the first under developed country which formally initiated planning for development on a sophisticated level in early fifties. The five year plans have since dominated the economic life of India, and the government continues to have faith in planning as a key to economic development and welfare of the people. Planning generally presupposes a rational approach to the use of scarce resources and a political will to implement the plan. This is many a time hard to find in countries with democratic governments. India

was and is not an exception and its planning efforts have faced economic, political and administrative constraints. The failure to achieve targeted growth rates and objectives, have not however dampened the people's enthusiasm or faith, and planning has forged ahead with a stronger determination to make it a success in the future, mainly because right from the beginning planning in India has been accepted as a continuous process.

India, by now, has completed five, five year plans, and is currently engaged in operating the sixth five year plan. The planning experience of India may therefore be of some value to the planners of the third world countries.

The objectives and strategy to planning in India have undergone changes on the basis of experience gained/learned from the past plans. The main objective of this section is to indicate briefly the objectives, approach, strategy, planning machinery, etc., of planning in India. Planners of the developing countries, especially those that have opted for planning era only recently and are facing difficulties which India faced in the early days of planning, may learn useful lessons from the experience of Indian planning.

APPROACH TO PLANNING

Planning in India has always been understood as planning for an increase in national income, *together*, with the satisfaction of a set of other special objectives which may not be realised in the absence of a deliberate planning. As these other objectives are not less important than the increase in national income, they have been required to be changed with the changing social and political circumstances. For further study and analysis, the brief history and objectives of planning as laid down in the plan documents of each of the five year plan are listed and given in Annexure I.

The development plan in India operates in terms of the directive principles of state policy laid down in the constitution. The most important general terms used in these directive principles are 'welfare' and 'social justice'. They seek to ensure that the state shall strive, "to promote the welfare of the people by securing and protecting as effectively as it may,

a social order in which justice, social economic and political, shall inform all the institutions of the national life". The main concern shown in these directive principles relates to : (*a*) prevention of exploitation, (*b*) problem of poverty and employment, (*c*) right to adequate means of livelihood, and (*d*) right to work, education and public assistance, etc. Public cooperation and public opinion are two dominant features of the planning process in India. Indian economic development is based neither on the capitalist nor the communist patterns. While the economic problems which India faces are similar to those two systems in earlier stages of their development, the problems involved are more complex and difficult, also, India's development plans have been launched within the framework of parliamentary democracy, which is based largely on the British pattern. The federal element needed the distribution of governmental power between the centre and many states that constitute the Indian union. The constitution therefore has specified subjects in three lists, *viz.*, the union, the state and the concurrent lists. Economic and social planning is listed in the concurrent list. The centre is required to coordinate the developmental activities in the essential sectors, whereas the states are required to take the necessary initiative in the spheres allotted to them. India's five year plans have three basic features, namely : (*a*) democratic planning, (*b*) mixed economy, and (*c*) decentralised planning. Each of the basic features are discussed briefly in the following paragraphs.

Democratic Planning

Like other socialist countries India adopted a method of centrally formulated plan. Its acceptance and execution however are pre-supposed. Five year plans of India are sought to be formulated and executed through democratic process. They are formulated by the Planning Commission and put out as 'drafts' for the purpose of scrutiny by the various consultative bodies, official and non-official, and the public. At the local, state and national level, efforts are made to initiate public debate and invite comments and criticism and constructive suggestions on crucial issues, not only at the formulation stage but also at the implementation stage. The

five year plans are widely discussed in parliament before being considered by the National Development Council (NDC), a political body consisting of the chief ministers of all the states and union territories and important cabinet ministers of the central government. The main objective of resorting to democratic planning in India, was to ensure the acceptance of the development plans and the sacrifices associated with them by the people. The First Five Year Plan states : "Public cooperation and public opinion constitute the principal force and sanction behind planning. A democracy working for social ends has to base itself on the willing assent of the people, and not the coercive powers of the state—In the way, any programme is conceived, offered and carried out, action by the agencies of the government must be inspired by an understanding of the role of the people and supported by practical steps to enlist their enthusiastic participation."[1]

The main objective behind the consultations and debates at the formulation stage is to strengthen public cooperation in national development and to ensure that the plan which takes shape after discussion and debates has the support of the nation. Another important aspect relates to the significant role given in the plan to the voluntary organisations in the economic and social development.

Mixed Economy

The second important feature of Indian planning relates to its functioning in a mixed economy. The public sector as well as the private sector are viewed as being complementary and are sought to play equally important roles in the economic development of the country. The government's investment in providing infrastructure facilities like transport, power, water, etc., helps the growth of the private as well as the public sector. India's predominant sector is agriculture, which, unlike in other planned socialist economy, is in the private sector and which accounts for nearly half the national income. What to produce, how to produce and when to produce are decided by the farmers themselves. The government helps them in providing credit and other facilities like improved

[1]*First Five Year Plan*, Ch. VIII, p. 144.

seeds, marketing, etc. either through government institutions or through cooperatives.

The industrial policy and the five year plan, while emphasising the widening scope of the states, initiative in economic organisation and the part that the state has to play, as an entrepreneur in an underdeveloped economy, for directing the patterns of its growth, also assigns an important role to the private sector in the planned development of the Indian economy.

Each five year plan broadly defines the role of the private sector and estimates the outline for investment in that sector. The plans do not seek to substitute arbitrary decision of a central authority for the market mechanism. The sector, however, is recognised to develop within the framework of Industrial Policy Resolution of 1956. The policy resolution which seeks, to translate the concept of "the socialistic pattern of society" into concrete terms lays down the broad spheres of activity of the public as well as the private sector. It explains, "the adoption of the socialistic pattern of society" as the national objective, as well as the need for planned and rapid development, require that all industries of basic and strategic importance, or in the nature of public utility services, should be in public sector. Other industries which are essential and require investment on a scale which only the state, in the present circumstances, can provide, have also to be in the public sector. The state is, therefore, to assume direct responsibility for future development of industries over a wider area. Nevertheless there are limited factors which make it necessary at this stage for the state to define the field in which it will undertake sole responsibility for further development and to make selection of industries in the development of which it will play a dominant role. After considering all aspects of the problems in consultation with the Planning Commission the Government of India have decided to classify industries into three categories having regard to the part the state would play in each of them. These categories will inevitably overlap to some extent and too great a rigidity might defeat the purpose in view. But the basic principles and objectives are always to be kept in view and the general direction hereafter referred to be followed. It

should also be remembered that it is always open to the state to undertake any type of industrial production.[2]

The first category of industries is of those whose future development is intended particularly to be the exclusive responsibility of the state although expansion of the existing privately owned units or the possibility of state securing cooperation of the private enterprises for the establishment of the new units when the national interest so requires is also envisaged. In the second category of industries the state may generally take initiative in establishing new industries but private enterprises are expected to supplement the efforts of the state. The third category includes all the remaining industries whose future development will in general be left to the initiative of enterprises of the private sector. Annexure II gives the list of industries which fall in within the first two categories.

The government's financial institutions, *e.g.*, nationalised commercial banks, the state financial corporations, industrial development banks, etc., provide financial assistance to the projects of the private sector. About 80 per cent of the investment requirements of the large private sector projects are financed and/or loaned by the government financial institutions and only 20 per cent of the funds come from the internal resources of the private companies. The private sector covers not only the organised industry but also the small scale industries, agriculture, trade and construction and other areas.

For the success of planned development, individual effort and private initiative are considered necessary and desirable. The Government of India, therefore, provides various types of assistance to the large scale as well as small scale industry, and encourages voluntary cooperation. The government does not play any direct role in channelling private investments in the desired field and activities. But all major private investment decisions are subject to licensing by the government. Thus the government, besides controlling finances through its financial institutions, ensures, with the help of licences supported by allocation of foreign exchange, licensing of imports

[2]*The Planning Process*, Government of India, Planning Commission, 1975, pp. 9-10.

and control over capital issues, that the private sector investment decisions are in accordance with the plan objectives and directions.

The procedures for industrial licensing have been streamlined keeping in view the changing economic and political climate. The industrial policy resolution of 1956 also has been supplemented by legal and institutional arrangements from time to time. The most important amongst them is the Monopolies and Restrictive Trade Practices (MRTP) Act of 1969. This Act aims mainly to disallow concentration of economic power in the hands of few industrial houses and paves the way for a "socialistic pattern of society" in the country.

Decentralised Planning

The third feature relates to decentralised approach to planning. Planning from the 'grassroots', *i.e.*, the bottom up approach, has remained the objective of India's development plans. This is sought to be achieved through community development and the national extension services since the First Five Year Plan. The execution of these programmes is from the base rather than from the top, *i.e.*, central authority. These services cover nearly 50 per cent of India's population.

The decentralised planning approach makes an attempt to involve rural people in the development programmes. It aimes at improving their standard of living by evoking local enthusiasm and ensuring local participation in mobilising local resources. The village councils prepare their need base plans and submit them for inclusion in the block plans. There are about 5000 blocks in the country. On an average one block consists of about 100 villages. The main basis of these plans is the felt need of the people, and the plans are not generally prepared keeping in view the resources available and after comparing costs and benefits. Attempts, however, are being made to improve the quality of these plans so as to mould grassroot planning with district planning, which forms part of state planning and finally national planning.

Decentralised planning through intended right from the First Five Year Plan, was not attempted seriously till the beginning of the Fourth Plan. The Ex-Deputy Chairman of the Planning

Commission, Dr. D.R. Gadgil, in 1966 had rightly observed that planning at lower levels was a matter of putting together standard schemes for each department or each activity. It was in the Fourth Plan that specific guidance was provided and emphasis was put on : (*i*) area approach and, (*ii*) targeted group—weaker section of society approach, to achieve growth with justice, both regionwise and amongst different income-groups. The emphasis on decentralisation increased from one plan to another. The current Sixth Plan puts special emphasis on district and block-level planning.*

India's five year plans have been formulated and sought to be implemented within the constitutional framework and political ideology. "Each five year plan in India has devoted careful attention to the political and social requisites of planning, sought fresh ways of strengthening and adopting institutions establishing new administrative processes, methods and machinery, broadening the manpower base for development and improving the machinery for plan implementation. Thus, the First Plan marked the beginning of community development and the national extension services in the rural areas and established the necessary legislative basis for the licensing and planning of industry. The Second Plan made the concept of planning and development more comprehensive and dynamic and led to a clearer and more pervasive long-term approach to the problems of industrial and economic development. It also led to legislative and other action in different fields and provided for a wide extension of education and other services. The Third Plan integrated the experience of the preceding decade and viewed the immediate phase of development as an integrated part of the scheme of development in the future. The Fourth Plan found that the growth achieved so far was not sufficient to bring about appreciable improvement in the standards of living of the poorer and weaker sections. So the Plan provided for special schemes for small and marginal farmers, landless labourers and weaker sections of the society including scheduled castes and tribes

*The details regarding grassroot planning process and responsibilities of village, block-level, district and state planning units with the central planning commission are discussed under planning machinery and process.

and women and children. The Fifth Plan now seeks to make a frontal attack on poverty by tackling the twin causes of poverty, *viz.*, underdevelopment and inequality".[3]

PLANNING MACHINERY

Planning in the Indian constitution is listed under the concurrent list. This means that the responsibility for planning rests, with both the centre and the states with the proviso that in the event of conflict the will of the centre shall prevail. Most of the things that have to be planned are included either in the union list, *i.e.*, the responsibility of central government or the state list, *i.e.*, the responsibility of state government. The centre is responsible for planning of major industries, railways, national highways, ports, shipping, telecommunication, etc., whereas the states have the responsibility of planning agriculture, irrigation, power, education, health, social and tribal welfare, small industries, roads and road transport. minor ports, etc. The regulation and management of fiscal and monetary policy of the country rests with the central finance ministry.

In view of the constitutional position of planning, the machinery for planning have been created both at the centre and state levels. The size and population of the federal states vary considerably. And hence, each state has evolved an organisational set up for planning on the basis of its need and available resource. There is no uniform pattern of planning machinery at the state level. They all, however, prepare their detailed plans, as per the guidelines provided by the Planning Commission, and submit it for consideration to them. As the financial management is the responsibility of the central government, the state plans are not generally prepared on the basis of resource feasibility, but on the basis of desirability. The Planning Commission, therefore, is required to prune and modify the state plans on the basis of the feasibility of implementation.

The Planning Commission, when established in 1950, was

[3] *The Planning Process,* Government of India, Planning Commission, 1975, Ch. I, p. 7.

assigned the following functions :

1. To make an assessment of the material, capital and human resources of the country, including technical personnel and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation's requirements.
2. To formulate a plan for the most effective and balanced utilisation of the country's resources.
3. To define the stages in which the plan should be carried out and to propose allocation of resources for the completion of each stage on a determination of priorities.
4. To indicate the factors which tend to retard economic development and to determine the conditions which, in view of the current social and political situation, should be established for the successful execution of the plan.
5. To determine the nature of the machinery necessary for securing the successful implementation of each stage of the plan in all its aspects.
6. To appraise from time to time the progress achieved in the execution of the plan stage by stage and recommend adjustments in policy measures that such appraisal may show to be necessary.
7. To make such interim or ancillary recommendations as appear to the Planning Commission to be appropriate either for facilitating the discharge of the duties assigned to it or on consideration of the prevailing economic conditions, current policies and monitory and development programmes. On an examination of such specific problems as may be referred to it for advice by the central government or state governments.

The resolution announced in the parliament specified that, "the Planning Commission will make recommendations to the cabinet. In framing its recommendations the Commission will act in close understanding and consultation with the ministries of the central government and the governments of the states. The responsibility of taking and implementing the decisions will rest with the central and state governments."[4]

[4]A.H. Henson, *The Process of Planning*, 1966, Chap. III, pp. 8-51.

Thus the Planning Commission is required to play a very significant role in ensuring a coordinated plan approach for economic development. The Planning Commission provides a vital link to ensure consistent sectoral and spatial plan. The Commission though an advisory body has the responsibility of organising the preparation of the plans, appraising the progress, and making recommendations on economic and social goals, policies and institutions. *But* it is not responsible for the execution of development plans.

The Government of India right at the time of launching the planning era, had realised the need to ensure the acceptance of the five plans by all the state governments and parliament. It, therefore, constituted two important institutions namely: (*i*) The National Development Council (NDC), and (*ii*) The Parliamentary Consultative Committee on Planning. The NDC, consists of all the members of the Commission and the chief ministers of all the state governments and union territories. The NDC serves as the highest national forum for planning.

The draft plan is first submitted to the meetings of NDC for approval. It is, thereafter, published and submitted for the consideration and comments by the parliament and the general public. Thus the Council provides the basis of cooperation and partnership for development programmes.

The Parliamentary Consultative Committee on Planning consists of a few members of parliament both from the ruling party and the opposition parties. The Committee meets in the Planning Commission periodically and reviews critically its progress in formulation and implementation.

Organisational Set-up of Central Planning Commission

The Planning Commission, as stated earlier, is required to prepare a blue print of economic development. keeping in view, the overall need and resources of the country. In doing so, the Commission has to work in close cooperation with the state governments and central ministries as well as the private sector. The Prime Minister, therefore, acts as the chairman of the Commission and presides over all the meetings of the Commission. The Commission is an advisory organisation to the cabinet which appoints the deputy chairman, to be the

technical and administrative head of the Commission.

The deputy chairman of the Commission is a full-time paid expert in planning, appointed by the government for a fixed term of appointment. He enjoys a status of a cabinet minister, in spite of not being the member of parliament or the cabinet. He attends all the cabinet meetings but does not vote. This enables the deputy chairman to be a party to all the decisions, at the highest political level, without drawing himself into the political battle. He is responsible for the submission of the draft five year plan to the government approval.

As regards the other members of the Commission they have changed from one plan to another. The members of the Commission can be grouped into two categories : (*i*) important cabinet ministers, and (*ii*) technical experts, selected and appointed to serve as full-time paid members of the Commission. The composition of the Commission is generally as follows :

(*a*)	Chairman	Prime Minister.
(*b*)	Deputy Chairman	Full time paid expert in planning appointed for a fixed period to enjoy the status of cabinet minister of the government. *Or* planning minister and deputy chairman. Political appointment from the elected members of the parliament.
(*c*)	Minister of State for Planning	Political appointment from the elected members of the parliament. He assists the prime minister in replying questions on planning in the parliament as well as in the parliamentary consultative committee.
(*d*)	Members	(*i*) Important cabinet ministers who attend the Commission meetings.

(*ii*) Three to four technical experts appointed as members of the Commission to prepare the blue print of the development plan. These experts are paid members and enjoy the status of minister of state in the central cabinet. They, however, do not attend the parliament and reply to the questions on planning in the parliament.

(*e*) Secretary — Senior civil servant from the Indian Administrative Services or member secretary appointed by the cabinet.

In an article[5] on Planning Commission, Shri P.P. Agarwal, an ex-official of the Planning Commission has described the composition and manner of operation of the Planning Commission as follows:

> All the members of the Commission work as a body, but for convenience, each member has charge of one or more subjects and directs the study of programmes in these spheres. The Deputy Chairman is primarily concerned with matters of general coordination and administration. The Minister of Planning has been allocated certain subjects like any other member, but he is also responsible for the Commission as a whole to parliament and the central cabinet. Important proposals that have financial implications and which might have repercussions on the economic policy are referred to member (finance) in addition to cases submitted to him as a member of the Commission. All cases involving policy are submitted for consideration at one of the meetings of the Commission. The cases to be considered by the Planning Commission

[5] P.P. Agarwal, "The Planning Commission", *Indian Journal of Public Administration*, October-December, 1957, p. 336.

as a whole include recommendations in regard to the formulation and the progress of the five year and annual plans, adjustments in the plans, matters involving departure from the plan policies, advice to the central ministry in a matter to be placed before the cabinet, important cases involving agreement with a central ministry or a state government or difference of opinion between two members of the Commission, and any policy matter relating to internal organisation and methods of work.[6]
The Commission has been established as a multi-member body not as a usual single administrative department. The very composition of the Commission ensures effective liaison with government. Though the Commission is a staff agency to advise government in matters of planning and development, the government itself is represented on the body of the Commission.[7]
In some way the Central Planning Commission is a unique institution and in the sphere of governmental organisation there has hardly been any recent development comparable, in its practical importance or in its general significance from the point of view of the 'science of public administration', to the growth of the Planning Commission. It is the chief staff agency—the nerve centre of national thinking—on matters of planning and development. It has, from time to time, also undertaken some line functions newly emerging from national planning, *e.g.*, general direction and supervision of community projects, enlistment of public cooperation in the implementation of the plan, etc. Though the Planning Commission is an advisory organ of the government it has come to exercise a significant influence over the formation of public policies even in matters other than of development, and its advisory role in a way extends over the entire administration.[8]

The Planning Commission's staff consists of large number of technical experts as well as officers from the Indian Administrative Services. It functions through a series of divisions and

[6]P.P. Agarwal, *op. cit.*, p. 332.
[7]*Ibid.*
[8]*Ibid.*

sections, each headed by a senior officer either from the Indian Administrative Services or a technocrat. The full-time members of the Planning Commission assume responsibility for the day-to-day work of particular divisions or sections although the Commission functions as a body and tenders advice jointly on all important policy matters. The various divisions may be divided broadly into two categories: (*a*) General divisions which are concerned with certain special aspects of the entire economy, and (*b*) Subject divisions which are concerned with specific fields of development It also has a separate division for perspective planning which is expected to provide general guidance for work on long term development which is undertaken in detail in the different divisions. The list of divisions in the Planning Commission is given in Annexure III.

One of the essential pre-requisites, for development planning is the availability of reliable statistical data collected, compiled and analysed regularly. The Government of India's central statistical organisation (CSO) collects and analyses the required data for national planning. This department is attached to the Planning Commission. The data base of the Indian economy has improved considerably since planning commenced. This is due to continuous efforts of the official and non-official organisations/committees in highlighting the requirements and suggesting the ways and means to collect them for planning. The CSO collects and publishes, after analysing, mainly two types of data, *viz.*, those collected on a regular basis from the various other official and non-official organisations and those collected and analysed after conducting surveys.

PLAN FRAMEWORK AND FORMULATION PROCESS

The quantitative framework of India's plans has been based on chosen planning models from time to time. The First Five Year Plan was formulated on the basis of the Harrod-Domer model and focused on fiscal policy aimed at raising domestic savings to the degree required by the projected investment levels that result from planned inome expansion and the estimated marginal capital output ratio. The Second Plan was based on structural model of Friedman Mahalnobis and laid emphasis on determining and controlling the pattern

of investments. The Third Plan attempted to achieve inter-industrial consistency in some detail. Thus there was a shift towards inter-industrial exercises. These multi-sectoral models were also characterised by their explicit extension to questions of inter-temporal choice. The Fifth Plan was based on the multi-sectoral consistency model, which included a macro-economic input-output and consumption sub-models.

The 1978-83 Sixth Plan was also based on a consistency model. The draft 1978-83 Plan states :

> The special features of the present planning model are related to the proposed objectives and development strategy. In building the model, particular attention was paid to the analysis of production possibilities and input requirements in agriculture. The employment objective was reflected on the special treatment of certain labour intensive village and small industry sectors and the detailed calculations of employment generation. The requirements of goods for consumption were estimated separately for rural and urban areas and for the poor and non-poor, so that the implications of the development strategy for production planning are fully taken into account.

The five year plans are static in nature and they are published once in five years. The financial outlays and physical targets for each state and sector are indicated in the plan document and the Planning Commission carries out mid-term surveys. Every year during October-December detailed discussions are held in the Planning Commission to determine the Annual Plan relating to each state and every sector for the next financial year. Thus the main plan is sub-divided into five annual plans during its implementation period. The annual budget—state as well centre—gives sanction to the annual Plans. These budgets attempt to give realistic touch to the plan based on actual economic circumstances.

From independence till 1977 the Congress Party had succeeded in forming the government at the centre. In 1977 it lost election and a new party called 'Janata Party' came to power. This party decided to terminate the then running Fifth Plan (which was normally to close in 1978) one year in advance and prepared a new Sixth Plan 1978-83. It also appointed a new

Planning Commission in 1977 which felt that the planners in the past had not attempted to revise the five year plans when the mid-term surveys indicated disparities between the forecasts and the achieved growth rates of the economy, due to domestic and/or international economic circumstances even half through the operating plans. This Commission felt that the planners did not attempt to revise the five year plans but resorted to sectorwise and statewise adjustments while deciding the annual plans. They felt that these adjustments related mainly to targets; financial as well as physical but not to the approach and/or development programmes. It therefore made a close examination of the planning process. The major shortcomings of the first five plans as revealed by the Janata Government's Planning Commission is given in Annexure IV.

The Planning Commission in 1977 felt that: (*i*) the poor achievement of the successive plans and the disparities between planned and achieved growth rates reduced the credibility and need for planning, and (*ii*) the discovery of sectoral imbalance in time could have helped to secure better results. To overcome these shortcomings the Planning Commission then decided to adopt a change from the 'fixed plan' to the 'rolling plan system'.

The important features of rolling plan system as determined by the Planning Commission were: (*i*) setting year to year targets for sectoral outlays and output for major sectors within the five year plan, and (*ii*) extension of the horizon of the five year plan by working out the selected sectoral targets for one additional year at the end of each year and the five year plan to be broken into five annual savings investment and production targets for measuring progress against expectation every year.

In January 1980, due to change in political circumstances the Janata Party was forced to call the mid-term elections and lost power to the Congress Party. The new government decided to terminate the Janata Government plan of 1978-83 and decided to launch a new plan without any plan holiday and hence the Sixth Plan period was decided to be 1980-85. The Sixth Plan has again resorted to the status of static fixed plan instead of the rolling plan system.

PLAN FORMULATION

In view of the federal structure of the country, the state governments play a very vital and important role both in planning and implementation. As stated earlier, the planning of agriculture, irrigation, power, education, health and social services, small industries and development of roads and road transport and minor ports falls within the scope of the state plans. The central government is concerned with the planning of industries, railways, national highways, major ports, shipping, civil aviation and communications as well as with overall fiscal and monetary policies and the principal financial institutions. The centre has the responsibility of coordinating and incorporating the state plans into national plans.

India's five year plan comprises of the plans of the central and state governments and plans for the private sector, especially the corporate sector. The process of formulation of a five year plan begins generally about 2 to 3 years in advance of its actual commencement. The Planning Commission, prior to preparing the five year plan document, reviews the economy, assesses the resource availability for investment, etc., and submits its findings to the government and the NDC for consideration. As regards the *modus operandi*, the Planning Commission first draws up the broad strategy of the five year plan after examining critically the state of the economy, the social and economic objectives, the rate of economic growth, etc. It indicates the growth rates and other objectives to be attained, in its 'Approach to Planning' document. This document is only indicative and does not suggest any magnitude in terms of physical targets and financial outlays for the plan. The NDC considers the suggested growth rate and objectives for the plan and approves them. The second stage of the plan, relating to the study of planning models, interrelationship of the various sectors, etc., is thereafter undertaken by the Planning Commission. Simultaneously the plans of individual sectors and the different states are prepared within the approved broad framework by the administrative ministries of the central government and the planning departments of the state governments respectively. The sectoral plans are first prepared

and submitted to the Planning Commission. The administrative ministries constitute working groups at the beginning of every five year plan to make recommendations on the development of sectors within its jurisdiction, *e.g.*, the ministry of industrial development sets up working groups on paper, cement, steel, etc. The ministry of transport sets up working groups on roads, ports, shipping shipyards, etc. The members of these working groups comprise of representatives of the concerned official and non-official organisations, experts in the field, representatives of the ministry, Planning Commission and the finance ministry, etc. These groups after studying major problems of the sector, make recommendations regarding the framework, strategy and policy measures required for its desired optimal growth. Their reports are considered by the Planning Commission while deciding the sectoral targets of the plan. In a majority of cases, it is possible that all the recommendations of these groups are not accepted because of resource constraints. It is in these reports that many a time, the large projects of the sectors are identified first. These working groups are disbanded after the five year plan is formulated.

As regards state plans, each state now has evolved a procedure and has established planning machineries at state, district and block levels. The vertical process relates to preparation of village plans, block plans, district plans and state plans. As discussed earlier, the Indian planning experiment has not succeeded in actual practice to formulate and implement the plan from below. It is mainly the 'top down' process which is ultimately followed. The state plans are prepared in detail for each sector and for district and block. They include details regarding the available financial resources, as well as the proposed measures to generate additional finances from the areas earmarked for them for taxation. These plans are discussed in detail with the Planning Commission, so as to ensure consistency of the development process within the available and anticipated resources and planning objectives. The Planning Commission discusses the sectoral plans with the representatives of the administrative ministries, and the state plans with the states' representatives, coordinates them and prepares a draft plan document for

consideration of the cabinet and the NDC.

On the basis of the preliminary studies and recommendations of the expert panels/working groups and discussions with the various interests, the Commission prepares the 'draft memorandum' and submits it to the cabinet and the NDC. This memorandum and the comments of the NDC provide the base for the draft five year plan, which is subsequently prepared and published as a document for the widest public discussion and consideration and countrywide debate. The central government and the state governments sponsor seminars and discussions on the document. Both the houses of the parliament discuss in detail all the aspects of the plan.

In the Planning Commission, meetings are held to discuss, in detail, the sectoral plans with the concerned administrative ministry with regard to the feasibility of the physical targets within the estimated financial outlays. The discussion on the state plans relates merely to the study of their financial projections, the proposals to raise additional resources, their plans of development in different sectors, etc. The state plans are first discussed with the representatives of the state governments and thereafter with the chief ministers for agreed physical targets and financial outlays as well as the centre's obligation to provide a given quantum of financial assistance.

The comments and suggestions on the draft plan, offered by members of parliament and people from different walks of life are taken into consideration in the preparation of the final plan document. The final plan outlines the objectives, policies and programmes of the plan. This document is once again submitted to NDC after obtaining cabinet approval.

The NDC, after discussing the draft plan, approves it with or without amendments, for detaining it in parliament inviting comments and suggestions. It is only on receipt of parliament's approval that the plan becomes a final plan document.

OBJECTIVES, SIZE AND NATURE OF FIVE YEAR PLANS

The First Plan was launched in 1950. The Planning Commission by now has prepared six five year plans, three annual plans and one rolling plan 1978-83.

The basic objectives of development policy have been described differently in different plans. The four main characteristics of these objectives however relate to : (*i*) rapid economic growth, (*ii*) modernisation and structural transformation of the economy, (*iii*) the attainment of self-reliance, and (*iv*) removal of poverty and inequality. The planwise objectives of each five year plan are given in Annexure I.

As regards the size, each plan has been much bigger than the preceding one. In public sector the financial outlay of the First Plan was Rs. 20,690 million, and this went up to Rs. 534,110 million in the Fifth Plan. The following statements indicate : (*i*) The planwise details of the public and private sector outlays and the original estimates as well as the actual expenditure in public sector, and (*ii*) plan expenditure (actuals) by heads of development:

PLANWISE DETAILS RELATING TO ESTIMATED AND ACTUAL EXPENDITURE IN PUBLIC SECTOR AND PRIVATE SECTOR OUTLAYS

(Rs. in million)

Plan Period	*Public Sector*		*Private Sector Outlays*
	Original Estimates	*Actual Expenditure*	
First Five year Plan (1951-56)	20,690	19,600	18,000
Second Five Year Plan (1956-61)	48,000	46,720	31,000
Third Five Year Plan (1961-66)	75,000	85,770	41,900
Annual Plans (1966-67 to 1968-69)	66,650	66,280	N.A.
Fourth Five Year Plan (1969-74)	159,020	157,780	89,800
Fifth Five Year Plan* (1974-79)	393,220	291,800‡	270,490
Sixth Five Year Plan† (Rolling) (1978-83)	710,000	N.A.	703,770
Sixth Five Year Plan (1980-85)	975,000	N.A.	743,100

*The plan was terminated one year in advance, *i.e.*, 1978.

†This plan was terminated in 1980 but estimates relate to five year period.

‡Relates to four years only—actual expenditure.

DETAILED PLAN EXPENDITURE AMONG DIFFERENT HEADS

(*Rs. in million*)

Name of Head	*First Plan*	*Second Plan*	*Third Plan*	*Annual Plan*	*Fourth Plan*	*Fifth Plan*	*Sixth Rolling Plan*	*Sixth Plan (1980-85)*
1. Agriculture and Allied Sector	2,900	5,490	10,889	11,071	23,204	44,240	91,250	1,25,390
2. Irrigation and Flood Control	4,340	4,300	6,647	4.710	13,541	42,260	90,190	1,21,600
3. Industry & Minerals	1,030	11,250	19,671	16,365	31,070	102,010	154,020	1,93,660
4. Power	1,490	4,520	12,523	12,125	29,317	70,160	151,120	2,21,870
5. Transport & Communications	5,180	12,610	21,117	12,224	30,804	69,170	111,780	15,546
6. Social Services								
(*a*) Education and Scientific Research	1.490	2,730	6,603	3,539	9,051	17,240	26,410	33,890†
(*b*) Health & Family Welfare	980	2,280	2,508	2,106	6,135	11,790	20,280	28,310
(*c*) Housing, Water Supply, Sanitation, Urban and Regional Development	330	850	2,333	1,760	7,291	21.500	48,440	64,110
(*d*) Social Welfare including Welfare of Labour, Backward Classes, etc.	320	830	1,743	1,196	2,601	5,270	10,040	22,700
7. Other Programmes and Schemes	1,600	1,860	1,731	1,158	4,774	9,490*	6,470*	8,010
TOTAL	19,600	46,720	85,765	66,254	157,788	393,220	710,000	9,75,000

*Coverage of residual/others category is not quite the same in the fifth and sixth rolling five year plans.
†Includes science and technology.

SOURCE : (*i*) Basic statistics relating to the Indian Economy—C.S.O., Government of India (1950-51—1976-77).
(*ii*) Draft Sixth Five Year Plan (Revised).

As regards actual achievements there is no two opinion that none of the five year plans achieved the targeted economic growth rates and other laid down objectives. As against the targeted economic growth rate of 5 per cent (or more) per annum the average annual growth actually achieved works out to 3.8 per cent during 1950 to 1979. The objective of this paper, however, is not to attempt critical analysis of the plan targets and achievements nor to seek answer to the question 'why'. The actual progress achieved and the structural changes brought about by the five five year plans and three annual plans are enumerated at pages 24-25,

The discussion relating to review of planning history, planning approach, planner objectives and machinery of planning, plan framework and formulation, achievement, etc.' in the above paragraphs is not exhaustive. It only illustrates the mechanism of the planning process in India and the size, structure and achievements of development effort. As national planning and project planning are complementary in nature, the discussion relating to the administrative set-up and procedure followed to prepare the five year plans will help in understanding the process of project planning in India.

The long term development plan requires well prepared projects and the projects require detailed explicit plan. The eminent economists Gittinger[9] and Hirschman[10] have rightly described projects as the 'cutting edge of development' and 'privileged particles of the development process'. In most developing countries, however, very little attention is given to the interaction between national planning and project planning. In India also this issue was completely ignored till early sixties, but, thereafter, the failure of the large projects to contribute to targeted output, in time, and at the anticipated costs, created some awareness amongst the planners to this question. In the following sections an attempt has been made to discuss and examine the project planning history, procedure, institutions, responsible for taking investment decisions, their organisational set-up, approval procedure, etc.

[9]J. Price Gittinger, *Economic Analysis of Agriculture Projects*, 1976.
[10]Hirschman Albert O., *Development Projects Observed*, 1967.

THREE DECADES OF PROGRESS AT A GLANCE

		1951	*1979*
1.	Net national product at constant (1970-71) (purchasing power of rupee) (in billion)	Rs. 167.3	Rs. 456.4
2.	Power generated (crore kilowatt)	530	9,218
	power transformers (lakh kw)	1.8	156
3.	Petroleum products refined (lakh tonnes)	2	232
4.	Coal (lakh tonnes)	328	1,047
	Iron Ore (lakh tonnes)	30	410
	Lignite (in tonnes)	28,17,933	35,80,133
5.	Steel Ingots (lakh tonnes)	14.7	86.4
	Saleable Steel (lakh tonnes)	10.4	70.2
6.	Aluminium ('000 tonnes)	4	178.5
7.	Copper ('000 tonnes)	7.1	21.1
8.	Cement (lakh tonnes)	27.3	193
9.	Agriculture		
	Area under principal crops ('000 hectares)	78,230	1,03,596
	Production of principal crops ('000 tonnes)	55,011	1,25,604
	Sugar (lakh tonnes)	11.3	64.57
	Vanaspati ('000 tonnes)	170	572
	Tea (crore kg.)	27.7	56.0
	Coffee ('000 tonnes)	21	118.5

		1951	*1979*
10.	Irrigation		
	Potential (lakh hectares)	25	153
	Utilisation	13	125
11.	Fertilizers		
	Nitrogenous ('000 tonnes)	9	2,013
	Phosphatic ('000 tonnes)	9	670
12.	Communications		
	Rail—Passenger traffic (crore)	12.8	33
	Goods traffic (crore tonnes)	9.3	22.33
	Road—Vehicles	2,25,000	29,37,000
	Passenger vehicles	79,000	3,39,000
	Post Offices—Rural	33,810	1,C8,491
	Urban	5,284	12,508
	Telephones (in lakhs)	1.68	23.01
	Telephone exchanges	540	6,239
	Revenue—Postal (crores)	21.22	913.96
	Telephone (crores)	9.0	398.64
13.	Health		
	Medical colleges	30	106
	FHCs	—	5,400
	Sub-centres	—	39,000
	Hospital beds (in lakhs)	1.13	4.7
	Life expectancy	32 years	52 years
14.	Education		
	Students in school (crores)	2.35	9.8
	Teachers	5,37,918	13,54,460
	Primary schools	2,09,671	4,77,037
	Colleges	542	3,270
	Universities	27	105
	Literacy (per cent)	19.6	29.45
15.	Other industries production		
	Sewing machines	33,000	3,64,000
	Bicycles	99,000	31,84,000
	Motor cycles and scooters	—	2,25,000
	Electric fans	2,00,000	33,80,000
16.	Banking	*June 1969*	*June 1978*
	Commercial banks	89	126
	Branches	8,262	28,016

SOURCE: *Yojana*, Vol. XXIV, Nos. 14 and 15, p. 82.

Project Planning

Project planning in India takes place within the overall plan framework. As stated in the earlier section, owing to the adoption of a federal constitution and planning being in the concurrent list, its responsibility lies both with the centre as well as the states. India's five year plans, therefore, consist of: (*i*) a central plan, and (*ii*) state plans. The investment decisions on projects in both the plans are required to be taken keeping in view the overall objectives of the five year plan and the importance of the proposed project in fulfilling these objectives.

Another important feature of Indian planning relates to its formulation in a 'mixed economy'; the private and public sectors, have both to play an important role in achieving the plan targets and objectives. Every five year plan indicates the percentage share of investment in both the sectors. The investment in public sector projects is directly controlled by the government. Private sector investment is channellised in the desired direction, through appropriate policies of licensing and incentives.

Project Planning in Private Sector

Investment in the private sector is about 40 per cent of the total investment in a plan. The government control on private sector projects, as stated earlier is generally exercised through the carrot and stick policy. The socially desirable projects for certain less developod regions are offered direct incentives such as : (*i*) tax rebate, (*ii*) cheap finance, (*iii*) supply of critical inputs and raw materials, (*iv*) provision of infrastructure like water, electricity, transport facilities, industrial sheds at subsidised rates, etc. On the other hand, to stop the investment in less desired sectors and areas the government resorts to the licensing system.

Every private sector project, requiring sizable investment has to apply for a licence to the ministry of industrial develop-

ment through the concerned administrative ministry. The licensing committee of the Government of India, after examining the total supply and demand (existing as well as planned) capacity and production in the country, and the anticipated role of the private sector in the concerned sectoral plan, decides to approve or reject the licence.

The major financial institutions in India are nationalised. The Life Insurance Corporation, the Industrial Development Bank, general assurance, Unit Trust and fourteen major commercial scheduled banks are under the control of the government. These financial institutions, while providing loans for private sector projects are required to examine financial as well as the economic viability of the projects. After analysing the government's long term policy for a sector and estimates future of demand and supply of products/facilities, the private enterprises indentify the projects and submit project details, indicating location, capacity, annual production, infrastructure required, etc., to the licensing committee of the government for obtaining a licence. On receipt of the licence, the enterprises in a majority of cases prepare feasibility reports for submission to the financial institutions for securing loan finance. In India, about 80 per cent of the required finance for implementation of large private sector projects come from the government controlled financial institutions. And hence the channellisation of private sector's outlays in the desired directions has not posed any major problems in India.

Financial institutions in India are now being encouraged to follow the economic viability approach rather than financial viability alone for approving or rejecting loans to private sector projects. Efforts are also being made to evolve a uniform appraisal method, so as to ensure that a project rejected in one sector does not qualify for acceptance in another sector merely because of the different approach and methodology adopted for appraisal.

Project Planning in Public Sector

The public sector projects constitute a major element in the national development plan. It has been assigned a dominant role in achieving the targets and objectives of planning

in the country and have constituted about 60 per cent of the total plan investment in five year plans. The public sector is expected to serve as an instrument of economic development as well as be the instrument of ensuring social justice. In 1979-80 the share of the public sector in the net domestic capital formation was about 55 per cent. The entire investment in railways, telecommunications, power, major and medium irrigation, and similar infrastructure services is earmarked for the public sector. It accounts for a substantial proportion of investment in major industries and in mining. Recently the public sector has also spread to the consumer goods industries such as bakery, fisheries, food, drugs, pharmaceuticals, footwear, hotel, etc., which were earlier entirely in the private sector.

The plan investment of the public sector falls within the purview of corporations and departments within the control of: (*a*) state governments, and (*b*) central government. The investment decision of state government enterprises is a responsibility of the state governments and constitutes a part of the state plans. The central government is responsible for the investment decisions of public sector undertakings, known as public enterprises, whose investment constitutes a part of the central plan.

The role of the public sector was expanded in various plan periods in accordance with the social and economic objectives envisaged in the plan. The number of public enterprises has increased from 5 in 1951, at the commencement of the five year plan, to 189 in 1980. The total investment in public sector undertakings has increased from Rs. 290 million to Rs. 170,000 million during the same period. Today, the public sector provides employment to about 1.9 million people. The share of the public sector in the notional domestic product has increased from 10.7 per cent in 1960-61 to 19.4 per cent in 1978-79.

In spite of its phenomenal growth and achievement, the public sector in India has also come in for criticism for its major shortfalls. The non-utilisation of the installed capacity by the public sector undertakings and increasing losses have come under severe criticism both in parliament and outside, by the official and non-official committees and organisations.

The failure of five year plans to achieve the targeted growth rates, has to a considerable extent been due to the failure of the public enterprises to complete their investment projects within the targeted gestation period and estimated costs and produce goods and services as per the estimate in terms of quantity and costs of their projects. This failure became a cause of concern to the planners and to the Government of India. It raised many issues relating to the 'why' of the failure? Was it because of: (*a*) the role assigned to the public sector, (*b*) wrong organisational set up, (*c*) paucity of well conceived projects and implementation, and (*d*) wrong personnel policy of the government in appointing the staff and/or a mixture of all?

The public sector in Indian planning are required to fulfil many objectives, namely, to promote employment, promote self-sufficiency through import substitution and save foreign exchange, produce goods and services in competition with the private sector, promote projects in the economically and socially backward areas, etc. These objectives, however, have not been adequately spelt out for operational purposes in the plan documents. In a mixed economy, therefore, taking investment decisions without a clear definition and quantification of objectives for public sector projects is liable to result in their operating without a bearing and purpose. It is, therefore, essential to have specific approach to investment decisions of this sector's projects.

The systematic project planning involves : (*a*) project indentification, (*b*) formulation, (*c*) appraisal, and (*d*) an approved procedure at the pre-investment stage. Each one of these stages plays an equal and important role in ensuring judicious investment decisions. In the following paragraphs an attempt is made to discuss briefly : (*i*) how the systematic project planning era commenced in India, (*ii*) what are the existing procedures/methods followed to observe a 'project cycle' for the public sector projects at the pre-investment stage, (*iii*) whether and to what extent the existing procedures/methods are scientific, and (*iv*) measures required to overcome deficiencies in evolving scientific project planning.

Project Planning History

Public sector undertakings of the central plan are controlled by their respective administrative ministries, *e.g.*, Bharat Heavy Electricals Ltd. (BHEL) which is an important industrial public enterprise is controlled by the ministry of heavy industry, whereas the Shipping Corporation of India, which provides shipping services and competes with privately owned shipping lines in India, is controlled by the ministry of shipping and transport. The ministry of finance at the centre which is responsible for the administration of the finances of the central government, as well as of the financial matters affecting the country as a whole, raises the resources and regulates the fiscal and borrowing policies of the central government. This ministry has four main departments, *viz.*, (*i*) the department of banking, (*ii*) the department of revenue and insurance, (*iii*) the department of economic affairs, and (*iv*) the department of expenditure. It is the department of expenditure that is required to regulate and control the finances of public enterprises of central government. This is achieved through the finance ministry's financial advisers attached to various ministries.

In the early years of planning, in spite of a definite approach to expand the public sector for achieving the plan objectives, no specific guidelines were provided by the government to its enterprises as regards their specific roles, pricing policies for their goods and services, their approach to finance, profitability/commercial viability and/or performance per unit of plan outlay, labour, etc. In the past, the finance ministry was solely responsible for investment decisions for projects of public enterprises and yet no directives were provided by the ministry to the public sector undertakings regarding the specific issues and considerations on which the projects were to be accepted or rejected.

In 1962, for the first time the chairmen and managing directors of the public sector undertakings were informed by a circular from the ministry of commerce and industry, that the early preparation of a detailed project report will greatly facilitate the execution and implementation of a project. This circular, however, did not provide any guidance about the information/ data which should be included for appraising projects at

the time of taking investment decisions. The history of public sector project planning indicates that the need for preparation of feasibility studies was first emphasised by the committee on "utilisation of external assistance" which observed that "the delay in foreign aid and utilisation is due to the dearth of well conceived projects ready for immediate implementations. It emphasised that the ministries should ensure that at least a feasibility report was made available for seeking external assistance."[1] Thus the beginning of project planning era was the result of need to avoid delays and provide required information and data for foreign aids projects to be submitted to the international agencies.

In 1965, the Government of India set up a separate bureau of public enterprises (BPE) with the objective of "integrating and strengthening the arrangement for economic coordination and evaluation of technical, economic and financial aspects of projects and the working of public enterprises in India". This bureau has five divisions, *viz.*, production, construction, finance, general management, and information and research, each looking after the relevant issues of all the public enterprises of the central government. This bureau is an autonomous organisation under the ministry of finance and is required to supervise and regulate all aspects of public projects.

A serious thought to the role of proper project planning for realisation of the objectives of planning became essential and unavoidable by 1965 due to the poor performance of the projects. The Planning Commission prepared and circulated a manual for feasibility report to all undertakings in the public sector.

The continuing poor performance of the public sector compelled the Government of India, in 1970 to set up a high power committee to examine the then existing procedures for investment in public undertakings and make suitable recommendations. The committee observed that the then existing procedure of scrutinising proposals for investment in the public sector, which was governed mainly by circulars issued by the ministry of finance, the finance division and the

[1]Raj A. Besant C., *Public Enterprise Investment Decision in India*, 1933.

BPE was not adequate. It also observed that the procedure should distinguish three stages of investment scrutiny, *viz.*, (*a*) project formulation, (*b*) feasibility study, and (*c*) detailed project report. The procedure was carefully re-examined and the following shortcomings were noticed:

(*a*) too many meetings at different levels and at different places tended to delay investment scrutiny;
(*b*) the basic and broader issues which tended to get mixed up with the less important ones and could not get isolated and brought up in clear focus to high decision making levels adequately in the process of investment decision; and
(*c*) there was no fixed and identifiable high level forum for investment decision.

In 1972, the Government of India set up a special division in the Planning Commission, *viz.*, the project appraisal division to appraise the central sector projects, from the national viewpoint, and make observations regarding the economic viability of investment proposals of large projects, whose capital cost exceeds Rs. 10 million. This division has also been entrusted with the work of developing a research methodology and other steps required to evolve systematic project planning in the country.

The government also set up a high power public investment board to consider the appraisal notes of the project appraisal division. At present there are three appraising agencies, namely, the project appraisal division, the bureau of public enterprises and the plan finance division of the ministry of finance to examine critically the feasibility reports prepared and submitted through the concerned administrative ministries by the public sector undertakings.

The above discussion indicates that as a result of the continuous need to improve the performance of the public sector a systematic procedure has been evolved for project planning in India.

It may be noted that even though national planning in India is from 1950-51, it took about 15 years to have a project planning system. The details of the existing procedure, the

composition of the public investment board, the appraisal issues, etc., are discussed in the subsequent sections.

Project Identification

As stated in the earlier paragraphs, the Planning Commission prepares the five year plans indicating the broad strategy of planning, as well as the economic growth rate and other basic objectives to be achieved during the plan period. The macro level planning exercise, undertaken at the beginning of every five year plan indicates broadly the role of each sector, the physical targets to be achieved and the financial outlays which would be made available for the devel[illegible] sector during the five year period. Subsequently, the administrative ministries set up working groups consisting of official and non-official experts, representatives of the Planning Commission as well as of the other concerned ministries and corporations to suggest the growth and strategy for development of the sector. This group examines in detail the problems and constraints of development and forecasts future demand and supply of the relevant goods and services. The group suggests expansion of the existing units, setting up of new units, and recommends various policies for the successful attainment of the physical targets and other objectives of the sector.

It may be mentioned that while estimating the future demand, supply and pricing policy, the group makes a detailed evaluation of the actual performance of the existing units in the private and public sectors. Based on these recommendations and pre-feasibility studies of alternative options of achieving the physical targets within the financial outlay earmarked for the sector, the concerned ministry in the central government prepares the sector plan. It is in this plan that the projects of the public sector for implementation in the five year plan period are identified. This identification relates broadly to the physical target, the financial outlay, the gestation period and selection of technology. *The identification of a project in the five year plan, however, is not the approval of the project for implementation.* It provides only a green signal for the preparation of the feasibility report for the project. The feasibility report is then prepared by the concerned public sector enterprise and submitted to the concerned ministries.

The preliminary scrutiny of the feasibility report is done by the ministry, and thereafter the copies of feasibility report are submitted to three appraising agencies, *viz.*, the Planning Commission, the economic affairs and the plan finance divisions of the finance ministry and BPE for their comments. The organisational responsibility for identifying the project thus rests with the concerned ministry.

The public sector projects in India many a time come up spontaneously on the basis of ideas of possibility and demand and availability of some raw material. They do not come up as an outcome of scientific investigation and systematic search for viability. The projects, therefore, continue to be identified like a 'shopping list' of the administrative ministries. In majority of cases, pre-feasibility studies of alternatives are not prepared and sufficient attention is not paid to assess the technical, financial and economic viability.

Social profitability analysis is being attempted by the government for final investment decisions on investment proposals; but at the identification stage, projects are identified on the basis of mainly technical possibility, and/or financial assessment. The administrative ministries' main basis and/or justification, remains 'the need' to have projects. Consequently, at the time of taking investment decision there is no option and the authority is confronted with only the "take it or leave it" option. The rejection of projects at that stage invariably involves a possible shortage of output or facility proposed to be provided under the project.

The main constraint in this respect is the non-availability of the required project planning capability in departments/organisations, where project ideas originate. Unless such capability is created and project identification is done on a more scientific basis and well in advance, after taking the national benefit into consideration, the adoption of sophisticated approach/method for selecting or rejecting projects will not serve a useful purpose. Steps are being taken to be better equipped in this matter by providing guidance to the public enterprises in the preparation of pre-feasibility studies for intended projects, well in advance, and keep ready a shelf of projects for the sector.

Another important drawback relates to the provision of central parameters, well in advance, after reviewing them in the light of the shift in emphasis of the different objectives of planning. The central parameters relating to shadow wage rate, premium on foreign exchange, accounting ratios of non-traded goods, etc., used at the appraisal stage, are not made available to the project authorities at the time of identification of projects. Thus there is a communication gap between those who identify projects and those who appraise them. In majority of cases, the location of new projects are identified in the five year plans without undertaking proper location analysis and availability of required infrastructure facilities. Subsequently it becomes difficult to change the location due to political pressure.

Project Formulation

Project formulation is a pre-investment exercise to determine: (*a*) whether to invest, (*b*) where to invest, (*c*) when to invest, and (*d*) how much to invest. The project reports are meant to provide all the information required to carry out the technical, financial, commercial, economic, and social profitability analysis. Project formulation is also a weak link of project planning in India, mainly because of the relatively late realisation of its importance. The investment decisions for large projects in the past were taken on half baked and ill conceived projects and hence the performance of public sector projects in terms of completion, cost estimate, operation, production, etc., failed to match the plan targets. The assumptions made in the reports were over optimistic as regards capacity utilisation, production build up, capital cost, norms of operating, costs, etc. The time over-runs and cost over-runs became a regular feature rather than exception.

In 1965, for the first time as a result of the realisation of these deficiencies, the Planning Commission prepared and published a manual for feasibility reports. This manual outlines in detail the procedure required to be adopted for project formulation. The manual was prepared by the management experts of the Planning Commission with the assistance of the United States agency for international development (USAID) which had retained the services of the consulting firm of *Peat*

Marwick & Livingston. It discussed in detail the major approval phases and preparation of the feasibility studies. The main points in the manual related to: (*a*) the demand analysis, (*b*) pricing and its determination, (*c*) technical development of size processes and layout of the project, (*d*) location, (*e*) cost estimates, (*f*) profitability analysis using discounted cash flow method, and (*g*) analysis of national economic benefits.

The Planning Commission circulated this manual amongst all the public sector undertakings with instruction to follow when they submit the project report. As the manual was prepared by management experts from a capitalist country, the focus was more on the profit maximisation aspect of investment decision rather than on national economic benefit. It failed to provide the required guidance to the public sector undertakings with regard to the type of data which will be required to be given in the feasibility reports so as to enable the authority taking investment decisions to judge the viability, not just on the basis of commercial profitability but on social profitability. It did not make any recommendation as to how best other national benefits should be accounted for, and incorporated in the project analysis. The choice of technology for achieving the objective of employment was not emphasised and no guidance was provided to the public enterprises as to how to take into consideration this objective's fulfilment through the project.

In 1974, the project appraisal division prepared and circulated "Guidelines for Preparing Feasibility Reports of Industrial Sector Projects". Unlike the earlier manual, this *Guidelines* indicates all the information and data required to be analysed in the feasibility report, so as to enable the appraisal agency to carry out: (1) technical analysis to determine whether the specifications of technical parameters are realistic, (2) financial analysis to determine whether the proposal is financially viable, (3) commercial analysis to determine the soundness of the product specifications, marketing plans and organisation structure, and (4) economic analysis to determine whether a project is worthwhile from the point of view of the economy as a whole.

The *Guidelines* describes in detail, the information required to be given and analysed on the following issues: (1) general information of the sector, (2) objectives of the proposal, (3) alternative ways, if any, of attaining the objectives and better suitability of the proposed project, (4) project description—gestation period, costs, technology proposed, anticipated life of the project, etc., (5) demand analysis, total demand/requirements of the country, including anticipated imports and exports and share of the proposed project, (6) capital costs and norms assumed, activitywise and yearwise, (7) operating—costs and norms, and (8) revenue and benefits estimation, etc. The *Guidelines* was first prepared as a draft and forwarded to the administrative ministry, *viz.*, industrial development and other concerned organisations and public sector enterprises of the ministry for comments. It was only after receiving the comments that the *Guidelines* was finalised and published.

Each sector has its own special features. And hence to provide complete guidance, it is necessary to prepare separate guidelines for preparing projects of the different sectors, *viz.*, roads, railways, ports, mining, command area projects, irrigation, power, etc. The drafts are now ready and it is envisaged to be published after receiving comments from the concerned organisations and departments. One relevant fact to be mentioned here is that since 1972 the quality of feasibility reports has improved significantly, still, more attention needs to be paid to improve the quality of the studies and the analysis of the feasibility reports so as to undertake a meaningful social profitability account.

Project Appraisal

The appraisal of public sector projects takes place after the feasibility reports are prepared and submitted by the concerned public enterprise and/or the administrative ministry. The objective of the appraisal process is not only to decide whether to accept or reject the investment proposal but also to recommend how the project could be redesigned and/or re-formulated so as to ensure better technical, financial, commercial and economic viability. As all investments in India take place within the plan framework, the relationship between the five year plan and the project under consideration

is very important issue for examination. It is mainly because of this requirement that the project appraisal division, which apprises the large public sector projects of central plans, was set up in the Planning Commission and not in the finance ministry, which issues expenditure sanctions for all investment proposals within the framework of annual budget. The project appraisal division (PAD) was set up in 1972, and its main functions relate to economic appraisal of public sector projects whose investment decisions are required to be considered by the public investment board (PIB) of India. The composition of the PIB and the procedure adopted by it are discussed in the next section. In this section it is intended to describe briefly the methods followed and the issues mainly considered in the appraisal notes of the PAD of the Planning Commission. It may be mentioned here that besides PAD, two other departments of the finance ministry, *viz*., plan finance division and the BPE are also responsible for preparing appraisal notes for consideration by the PIB. They, however, are responsible for preparing comments on specific aspects of the projects, *viz*., availability and administration of finance, organisation and management capability, sanction of additional staff, technical norms assumed, etc. The responsibility of preparing comprehensive comments, relating to the technical, financial, commercial, economic and social profitability of the proposed investment rests with the PAD.

Investment proposals for projects of various sectors which come for appraisal are those which have already been identified in the five year plan by the concerned ministries in consultation with the Planning Commission's subject division. This, however, does not mean that the projects which were not identified at the time of plan formulation cannot be included or *vice versa*. The process merely distinguishes different stages of project planning, *viz*., identification, formulation, and expenditure sanction for national plan projects. There is enough flexibility in the process. In practice, however, it rarely happens that any administrative ministry drops the identified projects.

As regards inclusion of new projects, the administrative ministries often make attempts but the resource constraint obliges them to stop short without agreeing to drop some

of the already identified projects. The inclusion and identification of projects in the plan document is tentative and only serves as a green signal for preparing detailed feasibility reports for them.

The Government of India set up a public investment board in 1972 with a view to evolving a scientific procedure for taking investment decisions. The board has provided the following broad guidelines on main issues to be examined while appraising the investment proposals :

(*i*) The contribution of the project to the economic and social objectives and adherence to the concerned policies of government.

(*ii*) The advisability of undertaking the project in the public sector, in the joint sector or leaving it to the private sector.

(*iii*) Availability of plan funds, desirability of diversion of plan funds to the new project from those already on hand.

(*iv*) The plan capacity and the timing of the investment in the light of supply and demand balance including export possibilities of the product/service.

(*v*) The economic benefits of the project as distinct from financial returns.

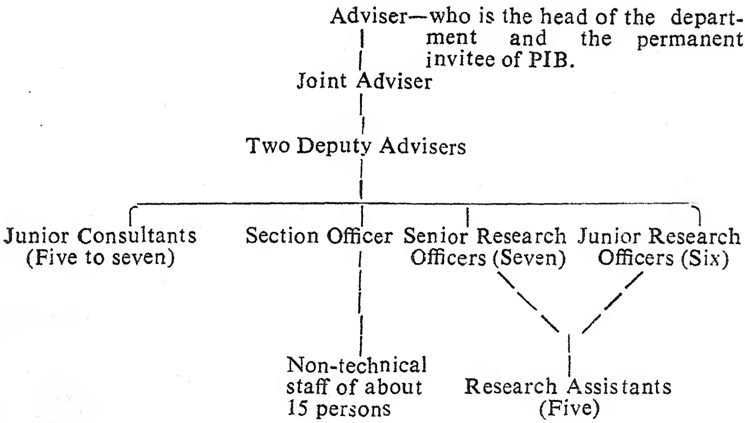
(*vi*) Crucial assumptions in the feasibility report that are likely to affect the performance of the commissioned project in relation to the claims made thereon in the feasibility report.

(*vii*) Major technological and constructional aspects which may have a bearing on the investment decision.

The project appraisal division which is responsible for preparing a comprehensive appraisal note indicating the technical, financial and social profitability analysis of the proposed investment project was set up in 1972 to serve as the technical arm of the public investment board. Its main functions are : (1) to suggest standard formats for submission of proposals for projects and procedures for their techno-economic appraisal; (2) to undertake methodological studies for estimating national p arameters; (3) to assist, if required, public sector enterprises

in preparing project reports; (4) to take an active part in training programmes for project planning; and (5) to carry out pre-investment analysis of investment proposals on the basis of social cost-benefit analysis.

The project appraisal division consists of technically qualified appraisers, economists, statisticians, engineers, etc. It has a permanent staff of about 30 persons. In addition, the division appoints a few junior consultants for fixed terms to assist the permanent staff in providing technical and managerial comments required for the appraisal of the large and complex investment proposals. The present broad structure of the division is as follows :



Project appraisal is considered a multi-disciplinary analysis and hence generally a team of economists, engineers, subject experts, etc., work together on the same project. How is it now? The division had sought the services of senior economists to do the methodological research, relating to: (*a*) calculation of shadow wage rates; (*b*) accounting ratios of non-traded goods; (*c*) economic price of foreign exchange; and (*d*) economic rate of return for the public sector projects, etc.

As regards the actual procedure of working, the research officers, on receipt of the feasibility report, first prepare the preliminary appraisal notes. These notes broadly indicate whether all the required information and data for carrying out technical, financial, commercial and economic analysis are

available in the feasibility report. If not, a list of such additional information/data/clarification required for preparing the final appraisal note is prepared and discussed with senior officials in PAD. Depending on the nature of further data required, it is decided whether to invite the project authority's representative for further discussions. In the case of major projects, it is considered fruitful to discuss the issues first with the representatives of project authority, and/or on the spot study/discussion, by the officers entrusted with the preparation of the appraisal note. In both the cases, the project authority is requested, by correspondence, to collect and/or analyse the additional information and forward them to the PAD for finalisation of its comments.

As mentioned earlier, the PAD was set up in the Planning Commission so as to ensure close relationship of the Five Year Plan and investment decisions and expenditure sanctions of projects. In the Planning Commission, subject divisions are responsible for the finalisation of different sectors' plan prepared by the concerned administrative ministries. And hence to ensure coordination every concerned subject division's comments are obtained by the PAD, while appraising projects of its sector, *e.g.*, industry division in the Planning Commission is requested to give its comments for the investment proposals forwarded by the Ministry of Industrial Development. The preliminary appraisal note along with the feasibility report is sent to the subject divisions. On receipt of additional information and/or clarification after discussions, the final appraisal note is prepared by the PAD.

As the investment decisions of many projects directly or indirectly affect other sectors also, and to ensure consistency and maintenance of sectoral balance, an internal Investment Planning Committee of the Planning Commission first discusses and considers the appraisal notes on public sector's project prepared by the PAD. This committee consists of advisers of all the sectors and the Secretary of the Planning Commission acts as the Chairman. The committee discusses in detail all the implications of investment decisions and recommends to the PIB the Planning Commission's views whether to accept, reject, defer, reformulate, redesign, etc., the investment proposal. The appraisal notes along with the Investment

Planning Committee's recommendations are thereafter sent to the PIB for consideration.

The PAD which was set up in 1972, is the first appraising agency of the government, which is engaged in pre-investment analysis of the central public sector projects on the basis of social profitability criterion. The project appraisal by the PAD is not intended to challenge the activities, targets and policies of the sector and/or the national plan. It is taken up in the context of economic planning of the country as a whole. And hence as stated earlier the starting point of appraisal relates to 'project and the plan'. If the proposed project's output facilities form a part of total envisaged demand to be fulfilled by the public sector and imports are not favourable, the appraisal makes an attempt to focus attention whether it is the most socially cost-effective method of producing the output, *i.e.*, whether the proposed project is the 'least cost option'. This is mainly the case with projects of developmental infrastructure and/or basic sector. The cost-effectiveness of alternative methods of producing the commodity/facility is examined and evaluated in terms of Economic Internal Rate of Return after quantifying economic costs and benefits.

The appraisal notes of projects mainly comment upon whether the assumptions made by the project authority relating to : (*a*) gestation period, (*b*) optimal location, (*c*) life of the project, (*d*) production build up, (*e*) capacity utilisation, (*f*) technical feasibility, (*g*) capital costs and norms along with proposed phasing, (*h*) operating costs and norms as well as likely availability of assumed infrastructure facilities in time and required quantity/volume, and (*i*) realisation of income and benefits, etc., are realistic, feasible and optimal. The note attempts to examine with and without situation. In case of traded goods, attempt is made to revaluate the Internal Rate of Return at the current and/or future c.i.f. prices even though the import of the commodity is banned. This analysis is intended to throw light on the government's policy, and quantify the economic cost of "making 'versus' buying". The objective of such analysis is to provide guidance for reviewing the policy relating to imports, prices, etc., in future.

The projects, forwarded for appraisal, are broadly divided

into three categories, namely : (*i*) industrial and non-basic sectors, (*ii*) infrastructure projects, and (*iii*) social projects. The appraisal approach at present varies for the different categories.

As regards the public sector projects of non-basic sector, like watches, drugs, certain chemicals, etc., the criterion for accepting or rejecting a project is mainly the comparison of the rates of return of the project with the assumed social rate of return of 12 per cent. The projects with the rates of return equal to or above 12 per cent are generally qualified for acceptance, provided they are within the targeted demand for the product and the stipulated time period. In these cases demand analysis at the estimated prices, the need for the project at the proposed location and the optimal size become important issues. The anticipated output is valued at c.i.f. prices to determine the 'make it' or 'buy it' decision. The main adjustments made while attempting the economic analysis of the project are briefly :

1. Evaluation of all tradeable inputs and outputs at border prices, *i.e.*, lowest c.i.f. prices, besides the domestic market prices assumed for financial analysis tradeable goods are only those items which enter the export-import budget of the plan.
2. Removal of taxes and duties from the non-tradeable inputs—only those taxes and duties which are levied for revenue collection and not for discouraging the use of the inputs or outputs.
3. Valuation of foreign exchange at a premium of 10 per cent, 15 per cent and 20 per cent for sensitivity analysis, the actual rate of premium on foreign exchange will depend upon the real costs underlying the foreign trade part of the plan.
4. Evaluation of unskilled and semi-skilled labour cost at estimated social wage rates, which reflect the employment and income generation impact of the project. In India SWR varies from state to state and from urban to rural areas. It, however, ranges between about 0.4 to 0.7.
5. Detailed examination of cost minimisation possibilities without reducing benefits in the case of non-tradeables

and the relationship of the plan's estimate of total demand and anticipated production from the project,

6. Calculation of internal rate of returns, financial as well as economic, at various sets of alternative assumptions and comparing them with the social rate of interest.

In the case of infrastructure projects and imported inputs like coal, cement, steel, etc., the appraisal notes generally do not question the need to produce the outputs. This decision is assumed to have already been discussed and taken in the plan while laying down the production targets. If the proposed investment project is found to be the least cost option available to meet the targeted demand, *i.e.*, having the highest economic rate of return amongst alternative options, it is recommended for acceptance. The basic requirement for determination of the least cost option relates to the availability of alternative options along with the details of cost and benefit at the time of consideration/appraisal of the investment project. *In practice, however, it is possible that the alternatives are hardly available for appraisal.* The projects of the sector are presented for approval one by one hence generally the appraisal is to be limited to (whether or not there are possibilities of minimising costs) both capital and operating cost without reducing the benefits/production assumed.

The projects of development infrastructure category are required to be recommended even though their economic viability analysis indicate that the economic internal rate of return is less than 12 per cent which is considered a reasonable economic IRR. This 12 per cent rate of return in India is estimated on the basis of average profitability underlying the investment allocation of the plan. There are different rates of return which qualify the acceptance of the projects for projects of different basic sector and developmental infrastructure. This is mainly because the social rate of return as per the conceptual methodology has not been estimated in India.

The qualification of social benefits for infrastructure projects and other social objective oriented projects is very difficult. The available data-base information is also not adequate. In such cases, the appraisal note attempts to estimate the value of annual benefits required to obtain the 12

per cent rate of return and compare it with the estimated value of the quantified benefits of the proposed project. The non-quantifiable social benefits in such cases are described in qualitative terms only. The PIB, the decision making authority, decides whether the qualitatively described benefits are worth the value of benefits for achieving a 12 per cent rate of return.

In the case of projects aimed *mainly* to benefit the poorest of the poor and reduce income disparity, the appraisal note also makes an attempt to investigate whether the maximum percentage of beneficiaries belonging to the target group is covered. In these cases, the objective is not generally to maximise the total number of beneficiaries but those belonging to the target group. This approach is adopted mainly because income distribution weights are not yet estimated in India, though greater emphasis is laid in the current plan on income redistribution and improving the lot of a weaker section of society. These objectives will need to be specified in more specific terms, so as to estimate the weights.

The appraisal notes of PAD on new project proposals generally include comments : (*a*) project description and history/background of the investment proposal, (*b*) plan and project, (*c*) need justification for the project, (*d*) demand supply and market analysis, (*e*) choice of technology and size proposed, (*f*) assumptions relating to gestation period and life of project, capacity utilisation, production build-up, product-mix, transport and other infrastructure required and availability, (*g*) capital cost and norms, (*h*) operating cost and norms, (*i*) cost minimisation probabilities, (*j*) alternatives possible and least cost option, (*k*) financial analysis by DCF method along with sensitivity analysis, and (*l*) social profitability analysis on the basis of the above discussed adjustments and sensitivity analysis.

The above discussed method followed in India does not foreclose further sophistication in the methods followed to appraise investment proposals. In practice, during the last eight years PAD has not been able to introduce more than the listed adjustments due to want of time and staff. Besides, the quality of feasibility reports was also too bad and inadequate to do meaningful analysis within the time limit. Efforts

are being made to evolve a social profitability analysis method suitable to take investment decisions within the plan framework and objectives.

It may also be mentioned that PAD is not only to analyse the new investment proposals but also the revised cost estimates of approved projects, if they exceed by 20 per cent. Their case is appraised mainly to investigate the factors/reasons responsible for time over-run and cost over-run of approved projects. Their analysis is supposed to provide guidance for the preparation of new projects in the same sector.

In the case of revised cost estimates, depending upon the actual progress of work completed and outlay spent, the analysis mainly relate to the examination of justification for the increase in cost. The appraisal notes make an attempt to analyse the cost increase due to : (*i*) change in the scope of the project, (*ii*) inflation and price rise, and (*iii*) omissions of cost estimates in the original feasibility report, *i.e*, increase in cost due to the poor quality of the feasibility report.

The PAD by now has appraised about 800 projects (including RCEs). Analysis of the experience gained from the two-fold exercise of appraisal of new projects and revision of cost estimates is discussed in the concluding section. As regards time frame, it is generally aimed to complete the appraisal within three months of submission of the feasibility report to PAD and/or additional data.

The project appraisal discussed in the above paragraphs relates to the methods followed at present. Efforts are, however, made to improve appraisal methods and also to provide assistance to the project authority to plan and prepare better projects. The PAD has already prepared draft guidelines for preparing projects of about 15 sectors which, after consultation with the concerned administrative ministries, will be finalised and circulated to public enterprises. The basic approach to appraisal, however, attempts to ensure the link between the plan objectives and the project investment decisions. The project appraisal does not plan investments but it chooses projects within the framework of the overall plan objectives relating to growth and social justice. Thus there is a need to develop a method of appraisal which can enable the government to take investment decision keeping in view the estimated

targets relating to production and facilities, international trade and consumption, etc., of the national five year plan.

Project Approval

This stage of the project cycle relates to the need for evolving a process for ensuring judicious investment decisions. As there are a number of investment proposals which compete for the available scarce resources they are required to be subjected to careful selection in order to determine their priority. This is especially required in India where the functions of project planning and expenditure sanction are not with the Planning Commission. The finance ministry is responsible for expenditure sanction. The Planning Commission is to prepare the long term plans aimed at achieving growth with social justice and other social objectives. And hence a procedure to coordinate these functions and objectives had to be evolved.

The procedure of scrutinising investment proposals of public enterprises till 1972, was governed mainly by circulars issued by the ministry of finance. This procedure distinguished three stages of investment scrutiny, *viz.*, project formulation, feasibility study and detailed engineering project report. The financial advisers of the administrative ministries were the focal point for: (*a*) receiving and processing feasibility reports and detailed project reports, and (*b*) consolidating the views of the ministry of finance, Planning Commission, etc.

In spite of the fact that the major investment proposals required the active cooperation of the ministries other than and besides the administrative ministry, their views and comments on the successful implementation of the proposals were not sought. There was no machinery in the government at a single point, which could advise the best investment decisions as between several available choices. The decisions were being taken on the strength of proposals which did not enjoy comparability among themselves. In other words, there was no fixed and identifiable high level forum for investment decisions.

The careful re-examination of the procedure also revealed that : (*i*) too many meetings at different levels and at different places tended to delay the investment scrutiny, and (*ii*) the

basic and broad issues which tended to get mixed up with the less important ones could not be isolated and brought up in clear focus to decision making levels adequately early in the process of investment decision. As discussed earlier this procedure did not ensure the administrative ministry of the project to examine carefully whether the projects were planned adequately and systematically. The consequences were serious as the projects failed to be completed within the estimated time and costs. This in turn led to failure of attainment of the five year plan targets. It was also observed that the projects investment proposals were hurriedly prepared without careful examination of norms relating to feasible gestation period, capital cost, production built up, capacity utilisation, operating cost sales, and benefits realisation, etc.

The government after detailed examination decided to improve the procedure by : (*a*) reducing the time taken for scrutinising and taking investment decisions, (*b*) insisting on better and critical examination of important and basic issues of investment proposals, (*c*) improving the capabilities in the administrative ministries for systematic project planning, and (*d*) setting up a project appraisal division in the Planning Commission for appraising the investment proposed on economic basis, by application of social-cost benefit analysis (SCBA).

In 1972, with a view to ensuring systematic project planning the central government decided to set up a public investment board (PIB) with the following functions :

1. Examination of the broad contours of investment proposals in the project formulation stage based on which a decision to prepare the feasibility report would be taken.
2. Taking investment decisions on proposals for public investment to produce goods and provide services.
3. Consideration of proposals for *revision of cost* estimates which exceed those approved at the time of investment decisions.[2]

[2] Office Memorandum on Public Investment Board, dated the 30th September, 1972, Ministry of Finance, Government of India.

The ministry of finance, department of expenditure, issued the directive to all the ministries that proposals for investment in public sector corporations/undertakings involving Rs. 10 million and above should be referred to the board. The investment decision for proposals requiring less than Rs. 10 million investment was to be scrutinised as per the then existing practice, *i.e.*, by the expenditure finance committee (EFC). This investment limits has since been revised to Rs. 50 million for proposals to be referred to PIB and Rs. 10 to 50 million for EFC.

PUBLIC INVESTMENT BOARD (PIB)

The PIB is the committee of secretaries entrusted with the investment decisions of public sector projects involving an investment outlay above Rs. 50 million. The composition of the board is as follows :

Secretary, Expenditure, Ministry of Finance	*Chairman*
Secretary, Economic Affairs, Ministry of Finance	*Member*
Secretary, Planning Commission	,,
Secretary, Industrial Development	,,
Secretary to Prime Minister	,,
Secretary to the administrative ministry concerned with the public investment proposal	,,

The director general of the bureau of public enterprises and adviser, project appraisal division of the Planning Commission are the permanent invitees. The board is provided with secretariat assistance by the plan finance division of the ministry of finance. To ensure a uniform and consistent approach, for taking investment decisions of small (between the investment limit of Rs. 10-50 million) as well as the large projects (requiring investment outlay of Rs. 50 million and above), the secretary, department of expenditure, serves as the chairman of the PIB as well as the EFC.

The Government of India, while setting up the central authority for taking investment decisions of big projects in the

public sector, emphasised three distinct stages through which a project idea should travel before investment decision, *viz.*, project formulation, feasibility study, and detailed project report, and decided that investment proposals in the first two stages should be referred to the PIB for a decision.

In the second stage, it was decided that the appraising agencies should prepare comments. For this, responsibility was given to three divisions, *viz.*, project appraisal division of the Planning Commission, the bureau of public enterprises, and plan finance division of the ministry of finance. The ministry of finance in this connection made the following observations/comments:

> It will be desirable to keep these three stages distinct and separate. In any case the stages of feasibility report and detailed project report should be telescoped. Without a clear prior investment decision, a detailed project report should not be prepared which involves expenditure of considerable time and funds and which goes into details such as engineering designs, drawings, construction data, etc. Expenditure should not also be undertaken on preliminaries such as land acquisition, railway lines and sidings, site preparation, etc., prior to investment decision. At a project formulation stage a preliminary and broad consideration is given to the question of priority and to the position of the investment proposal in the context of the annual and five year plans. This stage is usually relevant well before preparation of annual five year plans by the administrative ministry concerned with the public sector investment or when investments not already provided in the plan are proposed from time to time. The administrative ministry should very closely associate the Planning Commission at this stage. It is also necessary during this stage to associate the plan finance and project appraisal wing and where foreign exchange implication is serious the department of economic affairs also. After such consultation a report should be drawn up, incorporating the views of the concerned agencies where differences exist by the administration ministry for sub-

mission to the PIB through the plan finance and project appraisal wing. A feasibility report should be prepared if the board, after considering the report, directs so.[3]

Comments of the appraising agencies are considered while taking the final investment decision. Thus when PIB discusses a specific proposal it has before it: (*a*) a note prepared in the administrative ministry describing the proposal and other administrative matter, (*b*) comments of BPE, plan finance division, and (*c*) the economic appraisal of project appraisal division. The comments are generally prepared after clarifying the issues and discussions with the representatives of the project authorities as well as, if required, other concerned official and non-official departments/organisations.

The other responsibility of the PIB relates to examining the revised cost estimates of PIB approved projects, if the cost exceeds more than 20 per cent. This particular provision is to ensure that the project sponsors do not underestimate their cost estimate so as to get the sanction in the first instance by establishing better viability on lower cost and avoid scrutiny by PIB later, while demanding more money at the time of execution of the project.

The PIB meets periodically and issues instructions as are necessary for the effective discharge of its functions. As per the present procedure the investment proposals of the public sector undertakings, are first identified at the time of preparation of Five Year Plans and included in the plan with approximate estimation of financial costs and physical targets. The public sector undertakings then prepare the Feasibility Reports and submit it to its administrative ministry which in turn, after scrutinising, forward the copies of the Feasibility Report to the Plan Finance Division and Bureau of Public Enterprises of the Finance Ministry and Project Appraisal Divison of the Planning Commission for detailed comments.

The recommendations of the PIB on the investment proposals, after discussion are sent to the cabinet for final

[3]Office Memorandum on Public investment Board, Ministry of Finance, Government of India, dated 30th September, 1972.

clearance. The cabinet generally accepts the recommendations and implementations as per approved project, commences. It may be mentioned that in the PIB, the secretary of the administrative ministry and representatives of the public sector undertkaings on whose projects' investment decisions are discussed, get full opportunity to comment on the appraisal notes and comments prepared by the appraisal agencies. It is not always that project is either accepted or rejected. Many a time investment decisions are deferred till certain further data/information, analysis, etc., are completed, or projects are approved subject to conditions suggested, and other amendments being incorporated.

It may be mentioned that the financial advisers attached to the administrative ministries are linked between the project authority/administrative ministries and the appraisal agencies. They arrange to obtain the comments, consult the administrative ministry concerned if necessary, arrange meetings and prepare a report suitably incorporating the comments of different appraisal agencies. Normally, a feasibility report is brought up before the PIB along with the appraisal report within a period of three months. The appraisal report is circulated to members, at least one week before the PIB meeting.

CONCLUSION

The above discussed issues relating to the national sector and project planning (pre-investment stage) are neither very analytical nor exhaustive. The attempt is mainly to focus attention on how the system, methods and procedure of planning in India have evolved and how they have been improved upon. The planners in India, on the basis of 30 years' experience, have recognised that: (*i*) successful attainment of plan objectives is not possible without following systematic project planning, and (*ii*) the projects need to be scientifically identified, formulated and implemented within the overall plan framework. This inter-independence and the need for effective coordination of the national sector within project planning have been recognised after paying a very high price in terms of enormous time over-run and cost over-run of large public sector projects. This could have been avoided if a systematic

procedure had existed at the commencement of planning in 1951.

The observations and conclusions on the existing project planning system in India are summarised and highlighted in the following paragraphs.

The most important aspect of systematic project planning relates to project identification. The administrative ministries are responsible for identifying viable projects for inclusion in the five year plan. The administrative ministries in the past have failed to undertake the required analysis and study for systematic project identification mainly because of : (*a*) non-availability of experienced personnel, and (*b*) the time constraint at the time of the plan formulation. Technical feasibility, the need for the project, and better financial viability continue to provide main basis for project identification.

One of the objectives for taking investment decisions of public sector projects by a single, competent, high-powered body—the public investment board (PIB) is to ensure consistency and rationality. It is assumed that the administrative ministries will prepare a shelf of projects for their respective sectors and the PIB will have the option to sanction the better viable projects. This procedure is also to help determination of *inter se* priorities of projects on the basis of their economic and social profitability. These objectives, however, have not been realised. The projects continue to be forwarded one by one and hence in practice only one option is available for appraisal and taking investment decision.

In the case of projects of developmental infrastructure, they have, many a time, been compelled to approve the proposed projects, irrespective of their viability. In the absence of other identified alternative projects, the rejection of the proposed project meant shortage of infrastructure facilities and the output proposed to be provided. The administrative ministries contine to forward projects for approval as and when they are ready rather than as per their *inter se* priority within the sector. The main criteria for accepting a project for implementation has to be related to the need for production to meet the total targeted demand, *i.e.*, the supply and demand gap in the five year plans. Even eight years after the commencement of systematic project planning

procedure, and setting up of the PIB this first stage of the project cycle continues to be the weakest link.

Identification of projects in the five year plan document, with a specific location, poses serious problems many times. The location decisions are very rarely optional and need change on detailed examination at the time of appraisal. But politically the identified locations become irrevocable commitments. The other main defects relate to: (*a*) the optimal timing of investment, (*b*) the attention to and/or consideration of required investment in associated projects, (*c*) availability of infrastructure facilities and/or critical inputs, and (*d*) examination of cost-effectiveness. Unless identification process is based on the result of pre-feasibility studies and their technical, financial and economic viability analysis, the foundation of project planning will continue to remain weak.

As stated earlier since 1972 about 800 projects have been considered by the PIB. Project formulation, though improving, has a long way to go for perfection. The actual experience of the past has indicated that the quality of the reports is poor. Hence the project authorities have had to be requested to collect additional data which meant considerable delay in finalising the appraisal notes and taking investment decisions. The feasibility reports in their estimates of capital cost, operating cost, capacity utilisation, production built-up, gestation period, etc., do not adopt realistic assumptions and technical norms. This has led to considerable time over-run and cost over-run of the approved projects. The failure to complete the project in time in turn results in shortage of developmental inputs like coal, cement, steel, etc., and infrastructure facilities, *e.g.*, transport, power, etc.

The preparation and circulation of guidelines for preparing industrial projects by the Planning Commission in 1975 have led to some improvement in the feasibility reports of industrial sector projects. Every effort is made to curb the tendencies of the administrative ministries to submit half-baked and all-conceived projects for consideration. The project appraisal division of the Planning Commission has prepared draft guidelines for preparing feasibility reports of other 15 sector projects. These guidelines will be published and circulated to the public sector enterprises. The project authorities have,

however, realised that the appraising agencies will raise basic questions at the time of expenditure sanction and hence to avoid delay they have started analysing and undertaking studies and to base their assumptions on them.

The other major shortfall observed in project preparation relates to the absence of information and data required for monitoring and evaluation at the time of implementation. The sanctioning authority had in the past developed a detached attitude after according sanction and hence the need for this data/information in the feasibility report was not realised fully. The feasibility reports very rarely include the PERT chart and network analysis.

The public sector enterprises do not attach the required importance to post-evaluation studies of its approved and implemented projects. In the absence of such studies, these enterprises do not generally possess the feedback information to be supplied for future guidance. In many cases, the project authorities ignored the experience of the past, even though they possessed it, because they were more eager to sell their projects, to the sanctioning authority, rather than concerned about actual results and benefits. They have failed to realise that they will have to implement the approved, half-baked projects and will be accountable for time over-runs and cost over-runs.

As discussed in an earlier section, economic viability analysis relates mainly to: (*a*) removal of taxes and duties, whenever possible, (*b*) application of social wage rates for unskilled labour, (*c*) valuation of major tradeable inputs and outputs of non-basic sector at c.i.f/f.o.b. prices, and (*d*) valuation of foreign exchange at alternative rates of premium. In practice, it has been found very difficult to go in this direction mainly because of time, staff and information constraints. In several cases the viability of projects is more sensitive to assumptions and technical norms adopted in the feasibility reports. What is therefore urgently needed for ensuring the attainment of successful implementation are : (*a*) improved methods and procedures for identification of projects based on pre-feasibility studies of alternatives, (*b*) identification of least cost option based on technical, financial and economic viability studies, (*c*) preparation of a shelf of better quality projects and availability

of options at the time of appraisal and expenditure sanctions, and (*d*) availability of data and information in the feasibility reports for undertaking monitoring and evaluation at the time of implementation.

Unless the above-mentioned improvements are implemented, application of social prices and/or distributional weights for SCBA, will be meaningless. This need not be misinterpreted as futility of application of SCBA in India. It merely emphasises that unless attention is given to project identification and formulation, their appraisal on the basis of SCBA will either be not possible or will be meaningless. In case the available resources in terms of personnel and time are insufficient, it is better to go gradually towards the optimal system. The planners and the Government of India have realised the importance of SCBA, especially because of the stress on growth with social justice and attainment of social goals relating to income redistribution, removal of unemployment, balanced regional growth, etc. These objectives cannot be achieved unless every investment decision is decided on the basis of its contribution towards them.

It is important to note however that increasing attention is being paid to train civil servants in project planning by : (*a*) conducting short courses in different parts of India for middle level officers, and (*b*) organising 'orientation seminars' on the subject for top level civil servants to whom the trainees report.

The Training Division of the Department of Personnel and Administrative Reforms, Government of India, since 1976, has been organising every year about six courses for Middle Level officers on Project Implementation, Monitoring and Evaluation (PIME). Every course has an average of about 25 participants and thus by the end of 1982 more than 1000 personnel would have already been trained in this discipline. These PIME courses are organised sectorwise, *viz.*, agriculture, transport, irrigation, water resources, etc., so that the sector's specific problems in project planning can be highlighted sufficiently. These courses have been conducted practically in all the academic and research institutions involved in the research activities of social sciences and management studies. Every year at least one orientation seminar for the senior level officers in project planning is

being conducted by the Indian Institute of Public Administration, New Delhi. These seminars are being attended by very high level officers of the rank of joint secretary, additional secretary and secretary.

In addition, every year under the Colombo Plan and other technical aid programmes, middle level and senior level officers are sponsored in the courses conducted by various universities and research institutions on project planning in universities abroad. These training courses have created the required atmosphere in the government circle to understand the need and utility of social-cost-benefit analysis while taking investment decisions on public sector projects. It is hoped that these efforts will also enable the government to evolve a project planning system for public sector projects within the plan framework suitable to Indian conditions. □

ANNEXURES

Annexure I

BRIEF HISTORY AND OBJECTIVES OF PLANNING

A. BRIEF HISTORY OF PLANNING

The need for developmental planning for removing poverty and inequalities of the people in India was first recognised as early as the beginning of the 19th century. The eminent social reformer, Raja Ram Mohan Roy, pleaded for initiation of the process of economic modernisation "that involved the vast masses of the rural population through whom the growth impulse could travel outward and forward on a massive scale". For this he advocated the strengthening of the village panchayats so that they could function as "building blocks by which an Indian economy could be rationally constituted from the bottom upward".

The eminent leaders of national freedom movement in India, Dadabhai Naoroji, Mahadev Govind Ranade, Gopal Krishna Gokhale and others continued to stress the need for planning while condemning increasing disparity of income and continuous drain of resources from India.

The adoption and execution of the Russian Gosplan in the USSR provided sufficient enthusiasm to national leadership comprising Fabians, socialists, communits and other radical groups to advocate the need for formal planning in India. The Indian National Congress in 1931 adopted a resolution on the economic situation. In 1934 M. Visvesvaraya, an eminent scientist and educationist, released his publication "Planned Economy of India". This document analysed the then existing economic conditions in the country, stressed the need to reduce pressure of population on agriculture by industrial development and imparting technical education, etc. It also recommended : (*a*) fixed term, five to ten years economic development plan, and (*b*) a permanent organisation responsible for the preparation of the plan.

The Indian National Congress, assumed office in the provinces of British India under the new federal constitution promulgated in 1935. It appointed, a national planning committee under the chairmanship of Jawaharlal Nehru in 1938. This committee of experts recommended radical changes in

the economic and social structure of society for removing poverty and misery as well as inequality. The committee defined planning as involving "technical coordination by distinguished experts of consumption production of investment trade and income distribution in accordance with social objectives set by elected representatives of the nation. Such planning is not only to be considered from the point of view of economics and the raising of standard of living, but must also include cultural and spiritual values and the human side of life".[1] Thus right from the beginning the objectives of economic planning in India had focused attention on growth with social justice. The work of the committee was disrupted by World War II. The committee resumed its work after the war and submitted its report to the Congress before 1948.

In 1944, in an effort for reconstruction, the British government created a planning and development department for drawing up plans of development. This department was placed under the viceroy's executive council. The post-war reconstruction plans also aimed at removal of "the existing glaring anomaly of immense wealth side by side with abject poverty".

The interim government of congress-league coalition abolished the planning and development department and constituted instead an advisory planning board, comprising of Government of India's commercial, industrial, agricultural and financial advisers and selected economists and scientists. The main task assigned to the board related to : (*a*) critical review of planning efforts in the country, and (*b*) recommend objectives, priorities and machinery for planning.

In view of the existing political circumstances these plans did not mean much, as they were not launched for implementation. Besides, they were inadequate and lacked the necessary statistical data to justify successful implementation. However, the policy papers and plans prepared by the committees and official planning bodies provided the required base for launching the planning era (in 1950), and valuable guidance in determining : (*i*) the basic objectives of planning in India, (*ii*) the period of short term and long term plans, (*iii*) planning

[1] National Planning Committee, *National Planning Principles and Administrative Report*, p. 45.

machinery and organisation required at the centre and the states, and (*iv*) the ways and means to be adopted for ensuring coordination between the planning machinery and other ministries as well as the state governments, and other important aspects of planning.

Some private industrialists and a group of economists in India played a vital role in emphasising the need for planning and providing planning experiences. In 1944, three such plans, namely : (*i*) the Bombay Plan, (*ii*) the People's Plan, and (*iii*) the Gandhian Plan were formulated and publicised by three groups of people belonging to different political ideology. These plans adopted different approaches, outlays and priorities for removing poverty in the country. They aimed to focus attention on various issues of planning and laid emphasis on different objectives of planning, generally guided by their political ideology. Their observations and findings, however, had a significant bearing on the subsequently prepared five year plans. These plans succeeded in initiating a thinking on the means and ways and measures required for commencing a planning era in the country and highlighted the magnitude of the task of development planning. The objectives and approach of each of the private plans varied considerably but they all indicated the urgent need for economic growth to eradicate poverty in India.

The Bombay Plan which was sponsored by a group of eight prominent industrialists of India led by the eminent industrialists, *viz.*, Purshottamdas Thakurdas and J.R.D. Tata, proposed an outlay of Rs. 100,000 million for trebling the national income and doubling of per capita income over a period of 15 years. It laid emphasis on : (*i*) increasing production of capital goods, industry and power, (*ii*) co-operative farming, and (*iii*) development of small scale and cottage industries in the production of consumer goods, and to ensure full employment. It envisaged the following percentage growth rates for the main sectors during the plan period (1944 base period)—Industry 500, Agriculture, 230 and tertiary 300. For financing the plan, the plan proposed a heavy dose of deficit financing, and to offset the inflationary effect it recommended vigorous control of every aspect of economic life including freedom of enterprise. On the role of the

state government, the Bombay Plan advocated that the official policy "must provide for free enterprise but enterprise which is truly enterprising and not a mere check for sluggish acquisitiveness". The plan however ignored the administrative problems of implementation and the data base required for preparing a feasible plan. It was also silent on redistribution of income or removal of inequality.

The People's Plan published by the Indian Federation of Labour under the leadership of M.N. Roy aimed at socialism and the need for expansion of the puplic sector. It was however significantly different from the Russian plans. It emphasised all round nationalisation but advocated development of agriculture by voluntary collective ownership. It did not insist on compulsory collectivisation as in Russia. The people's plan envisaged four-fold improvement in the standard of living over a period of ten years at an outlay of Rs. 150,000 million. The plan emphasised more on development of agriculture compared to industry. The development of agriculture and expanding public sector were supposed to become self-financing within *six years*. It had nothing much to say about the need to solve unemployment and under-employment or development of small scale and cottage industries. The plan completely ignored the issues regarding raising financial resources.

The Gandhian Plan prepared by an economist disciple of Gandhiji, Sriman Narayan, focused attention on a labour intensive project and programme for economic development, *vis-a-vis* development of large scale industries and mechanisation. Its important contribution was emphasised on rural reconstruction, popular participation and cooperation of the rural masses through 'panchayat raj'. It aimed to provide a way of life to people by resorting to simplicity of life, sanctity of labour, local self-sufficiency, dignity of the individual, decentralisation, and independent village community. It proposed an outlay of Rs. 35,000 million (at pre-war prices) for a period of ten years and proposed the following percentage distribution of outlay amongst different sectors: (*i*) agricuture—33.6, (*ii*) large scale and key industries—28.6, (*iii*) public utilities—14, (*iv*) rural industry 10.0, and (*v*) education 9.0. Thus like the Bombay Plan which set aside about 34 per

cent of the total outlay for development of large scale and captial goods industry the Gandhian Plan also envisaged the development of basic industries and allocated about 28 per cent of the total plan allocation. Thus in spite of having different approaches to planning and the method of planning both the plans could not ignore the role of heavy industries and large scale industries in the planning and improvement of living standard of the country.

None of the above-mentioned plans, however, were complete or adequate for implementation. They indicated the desirability and direction of economic development but lacked detailed assessment of financial and administrative requirements. They were essentially a collection of schemes and projects considered worthwhile by their promoters. The immediate utility of these plans therefore was not significant.

In any case, they failed to get the necessary political support as they all came up at about the time of transfer of political power from the British to India. The significance of these private plans is ably summarised by an eminent economist of India, Prof. A.K. Das Gupta, as follows :

> Structurally the First Five Year Plan may be said to be an off-spring of the Bombay Plan. The formulation of growth target, the application of the concept of investment by created money which is another name for deficit financing all these are apparently derived from the Bombay Plan. If, however, the structure is based on the Bombay Plan, its inspiratian is derived from the National Planning Committee and the contents largely from the official reconstruction programmes. The later emphasis on socialism may perhaps be traced to the framework of the people's plan and decentralisation approach of planning to the Gandhian Plan.

India gained its freedom in August 1947 but was divided into two independent nations, India and Pakistan. The partition of India created innumerable problems. As stated earlier, in 1946 the Interim Government of India had appointed an advisory planning board to do "a rapid survey of the field and to make recommendations regarding the coordina-

tion and improvement of planning and as regards objectives and priorities and future machinery of planning". This board had recommended the need for setting up a non-political and non-ministerial permanent planning commission. The recommendation of the board could not be immediately accepted for implementation as the then government was busy in solving the problems created by partition.

The national government which was very keen to solve the problems of poverty recognised the need for industrialisation to bring about economic development. It, therefore, appointed various official committees and groups to evolve a suitable industrial policy in the country. The Government of India's industrial policy resolution of 1948 announced that "the careful planning and integrated effort over the whole field of national activities was necessary and the Government of India proposed to establish the national Planning Commission to formulate programmes of development and to ensure their execution".

The industrial policy resolution subsequently became the basis for the approach and objectives of five year plans. The resolution emphasised the need to increase production, both agricultural and industrial, by all means, side by side with measures to secure equitable distribution. It also stressed the need for expansion of production of: (*a*) capital equipments, (*b*) essential commodities required to satisfy the basic needs of the people, and (*c*) exportable commodities for earning exchange. It, therefore, envisaged an increasing role of public enterprise as it held that private sector may not expand in the desired direction and to the desired extent. The 1956 industrial resolution classified the industries into three categories, *viz.*, (*i*) industries solely reserved for public sector, (*ii*) industries to be progressively state-owned and compete with similar units in the private sector, and (*iii*) all other industries to be left to private enterprise for growth and development.

The new constitution of independent India was adopted by the Constituent Assembly in 1949. On January 26, 1950, India became a "sovereign democratic republic" and pledged "to secure to all its citizens justice, social and economic and political; liberty of thought, expression, belief, faith and

worship; equality of status and opportunity, and to promote them all fraternity ensuring the dignity of the individual and the unity of the Nation". The new constitution adopted a federal structure with parliamentary form of government at the centre as well as the states (including union territories).

Immediately after adopting the new constitution the Government of India set up the Planning Commission in March 1950 to undertake planning for economic and social development, within a parliamentary democracy and federal polity established by the constitution. As stated earlier, in the pre-independence period the required preliminary work relating to determining functions, approach, objectives, etc., of planning and planning machinery were done by the advisory planning board in 1947 and the industrial policy resolution of 1948. And hence, the Commission was able to launch the planning programme immediately. The Commission was set up with the objective of assigning it an advisory function rather than the executive responsibility. And hence Commission was established by a cabinet resolution and not by a law in parliament.

The Planning Commission thus is not a statutory body like the Finance Commission or the Monopoly and Restrictive Trade Practices Commission, but an advisory board. The objective of establishing the Commission by a cabinet resolution was to provide flexibility, if warranted by external and/or internal economic circumstances, to change the programme of development during the course of implementation of the plans.

The role of the Planning Commission has been commented upon from two points of views, *viz.*, (*i*) it functions as a super cabinet, and (*ii*) it is ineffective as its advice is not always accepted and it has no effective voice in the implementation of plans. Late V.T. Krishnamachari who was associated with the Planning Commission as a member and Deputy Chairman has observed :

> These comments appear to be based on a misapprehension of the role of planning body in a parliamentary democracy. It might, therefore, be useful to stress the more important aspects of the position the Planning

> Commission occupies *vis-a-vis* the union and state governments. When a plan is under preparation the strategy of the plan, the financial resources for it, the broad pattern and inter-sector allocations are settled by the cabinet and National Development Council at a number of meetings on the basis of proposals worked out by the Planning Commission in close consultation with the union ministries and state governments and the other bodies mentioned within this framework, allocations are made by the Planning Commission according to priorities after consultations with ministries and state governments which extend over several weeks. In fixing priorities, the Planning Commission examines projects and programmes in the perspective of the economy as a whole. In the nature of things, these allocations, which inevitably mean reduction of the demands of ministries and state governments have to be accepted as the best possible in the circumstances. To this extent the Planning Commission has an important role. The roles of Planning Commission and the governments are supplementary. The Planning Commission viewing the question in the context of the economy as a whole and not being saddled with everyday problems of administration can give useful assistance to ministries in the formulation of projects and policies.[2]

The Planning Commission has by now prepared and launched five successive five year plans, and during the course of their operation many changes in the programmes and projects for development were introduced. Whether these changes were necessitated because of changes in the external and internal economic circumstances and/or political convenience have remained a debatable issue. This informal method of creation has been criticised on the ground that the flexibility provided vagueness to planning. Consequently the political will to implement the developmental plans, which demand sacrifices in terms of present consumption for future invest-

[2]V.T. Krishnamachari, *Fundamentals of Planning in India*, published by M/s. Orient Longmans.

ment was generally found lacking and the plans have been treated as "sophisticated election mainfesto" to satisfy the intelligent and vocal section. To what extent the Commission with the legal backing would have been more successful in achieving the targeted development objectives, is difficult to assess.

B. MAJOR OBJECTIVES OF THE FIVE YEAR PLANS IN INDIA

FIRST FIVE YEAR PLAN

Objectives

The immediate aim of the plan was to provide an answer to the problems of high and rising prices, shortages of raw materials and the essential consumers' goods and the relief and rehabilitation of distressed persons. The long term objective was to initiate a process of plan economic development. The First Five Year Plan of India tried to lay down the approach and strategy to planning in the country and it was quite modest in its approach and less ambitious as compared to the other plan.

An outlay of Rs. 20,000 million (later increased to Rs. 24,000 million) was proposed for the public sector. This together with an estimated investment of Rs. 16,000 million in the private sector was expected to lead to an 11 per cent increase in national income. Investment in the economy was to rise from an annual rate of Rs. 4,500 million in 1950-51 to about Rs. 6,760 million in 1955-56 that is from 5 per cent to 7 per cent of national income.

SECOND FIVE YEAR PLAN

The principle objectives of the second plan were : (*a*) a sizeable increase in national income so as to raise the level of living in the country, (*b*) rapid industrialisation with particular emphasis on the development of basic and heavy industry, (*c*) a large expansion of employment opportunity, and (*d*) deduction of inequality to income and wealth and a more even distribution of economic power. The plan proposed

an outlay of Rs. 48,000 million in the public sector of which Rs. 38,000 million was to be invested. Investment in the private sector was estimated at Rs. 24,000 million. Total investment in the second plan was twice that in the first plan, the rate of investment was to increase from 7 per cent of national income in the first year of the plan to 11 per cent by the end of the plan. A more rapid rate of growth of national income than that achieved in the first plan was in its 5 per cent per annum as at 3.5 per cent in the first plan.

THIRD FIVE YEAR PLAN

The objectives of the third five year plan were : (*a*) to secure a rise in national income of over 5 per cent p.a., the pattern of investment being designed also to sustain the rate of growth during subsequent plan period ; (*b*) to achieve self-sufficiency in foodgrain and increase in agricultural production to meet the requirements of industrial exports ; (*c*) to expand basic industries like steel and chemical fuel and power and establish machine building capacity so that the requirements of further industrialisation can be met within a period of ten years or so mainly from the country's own resources ; (*d*) to utilise to the fullest possible extent the manpower resources of the country and to ensure substantial expansion in employment opportunity ; and (*e*) to establish progressively greater equality of opportunities and to bring about reduction in dispareties of income and wealth and more even distribution of economic power. As against the public sector outlay of about Rs. 75,000 million the actual expenditure during the third plan was Rs. 85,772 million. The plan has proposed an investment of Rs. 41,000 million in the private sector. The rate of investment increased from 11 per cent of the national income by the end of second five year plan to 14 per cent at the end of third plan.

The third plan period was in certain respects very abnormal, weather conditions which governed such a production were adverse in three years out of the five the country faced hostilities in 1962 and again in 1965, this necessitated step up in defence outlay and led to inflational

depression. There were delays in securing foreign credits initially and virtual suspension of impose in foreigners in the last year.

FOURTH FIVE YEAR PLAN

Later objectives of the fourth plan covering the period 1969-74 and research in increase in national income of 5.5 per cent p.a., the other objectives were : (1) Exploration of the temporary development and condition of stability and reduce uncertainty; (2) Greater allowance on internal resources and deduction of independence on foreign aids; (3) To create more employment opportunities in the rural and urban sectors on an increasing scale to original and local planning; (4) Family Planning finds its place in the plan as a programme of the highest priority; and (5) Apart from the highest priority give to increase agricultural production the plan also provided for the building of sizeable buffer stocks to even out the supplies, foodgrains and other measures to stabilise foodgrain prices, and the price level in general.

The fourth plan proposed an outlay of Rs. 248,820 million of which the public sector outlay was Rs. 159,020 million while the investment in the private sector was anticipated to be Rs. 89,800 million. In the public sector Rs. 136,550 million were provided for investment and Rs. 22,470 million for current outlay.

It may be noted that the third five year plan completed in 1966 and the fourth plan instead of starting in 1967, actually commenced in 1969. This was mainly because of constraints experienced in resources and other economic conditions. Besides a large number of projects and programmes of the earlier plans had remained uncompleted and, therefore, had required investment outlay for completion. If the next plan had been launched immediately very little outlay could have been spared for starting new schemes. The Government of India, therefore, then decided to complete continuing projects and programmes rather than starting new ones.

FIFTH FIVE YEAR PLAN

The removal of poverty and attainment of economic self-

sufficiency were two strategic long-term goals, in the light of which, targets and programmes for the fifth five year plan, 1974-1979, were conceived. According to the draft fifth plan gross domestic product at factor cost was projected to grow at an average annual rate of 5.5 per cent. To sustain the envisaged growth rate, the rate of capital formation was projected to grow from an estimated 13.7 per cent of GNP at factor cost in 1972-74 to 16.3 per cent in 1978-79 and a rate of gross domestic savings, from 12.2 per cent of GNP at factor cost in 1973-74 to 15.7 per cent in 1978-79. In the draft plan, poverty level was defined, in terms of a minimum level of consumption. At 1972-73 prices Rs. 40.6 per capita per month was deemed a minimum desirable consumption standard.

An outlay of Rs. 543,110 million was envisaged for the plan. Of this Rs. 372,500 million was to be in the public sector, and Rs. 161,610 million in private sector. In the public sector, Rs. 314,000 million was provided for investment and Rs. 58,500 million for current outlay. The total investment for the creation of productive assets in the economy was estimated at Rs. 475,610 million. The sectoral allocation of resources was based on the following guidelines :

(*a*) Speedy completion of projects and programmes already underway and spilling over the fourth plan period,
(*b*) fullest utilisation of capacity already created,
(*c*) achievement of the inescapable minimum targets of additional capacity in the core of the plan, and
(*d*) attainment of certain minimum levels of development for the economically weaker sections.

Foreign collaboration was expected to supplement and accelerate the development and utilisation of indigenous technological and productive capabilities so that the country would not merely be recipient of foreign technology but also an exporter of know-how in certain fields to bring about a measure of balance.

SIXTH FIVE YEAR PLAN (DRAFT)—ROLLING PLAN 1978-83

Objectives

1. Growth rate of 4.7 per cent per annum.
2. Principal objectives of planning to be achieved within a period of next ten years :

(*a*) the removal of unemployment and significant underemployment,

(*b*) an appreciable rise in the standard of living of the poorest sections of the population, and

(*c*) provision by the state of some of the basic needs of the people in these income groups—like clean drinking water, adult literacy, elementary education, health care, rural roads, rural housing for the landless and minimum services for the urban slums.

The above-mentioned primary objectives are aimed to be achieved while—

(*d*) achieving a higher rate of growth of the economy than in the past ;

(*e*) moving towards a significant reduction in the present disparitie of income and wealth ; and

(*f*) ensuring the country's continued progress towards self-reliance.

SIXTH FIVE YEAR PLAN (1980-85)

The main objectives of the Sixth Plan should be : (*a*) A significant step up in the rate of growth of the economy, the promotion of efficiency in the use of resources and improved productivity ; (*b*) strengthening the impulses of modernisation for the achievement of economic and technological self-reliance ; (*c*) a progressive reduction in the incidence of poverty and unemployment ; (*d*) a speedy development of indigenous sources of energy, with proper emphasis on conservation and efficiency in energy use ; (*e*) improving the quality of life of the people in general with

special reference to the economically and socially handicapped population, through a minimum needs programme whose coverage is so designed as to ensure that all parts of the country attain within a prescribed period nationally accepted standards ; (*f*) strengthening the redistributive bias of public policies and services in favour of the poor contributing to a reduction in inequalities of income and wealth ; (*g*) a progressive reduction in regional inequalities in the pace of development and in the diffusion of technological benefits ; (*h*) promoting policies for controlling the growth of population through voluntary acceptance of the small family norm ; (*i*) bringing about harmony between the short and the long term goals of development by promoting the protection and improvement of ecological and environmental assets; and (*j*) promoting the active involvement of all sections of the people in the process of development through appropriate education, communication and institutional strategies. □

Annexure II

LIST OF INDUSTRIES RESERVED FOR PUBLIC SECTOR

SCHEDULE A

1. Arms and ammunition and allied items of defence equipment.
2. Atomic Energy.
3. Iron and Steel.
4. Heavy castings and forgings of iron and steel.
5. Heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the central government.
6. Heavy electrical plant including large hydraulic and steam turbines.
7. Coal and lignite.
8. Mineral oils.
9. Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond.
10. Mining and processing of copper, lead, zinc, tin, molybdenum and wolfram.
11. Minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order, 1953.
12. Aircraft.
13. Air Transport.
14. Railway Transport.
15. Ship building.
16. Telephones and telephone cables, telegraph and wireless apparatus (excluding radio receiving sets).
17. Generation and distribution of electricity.

SCHEDULE B

1. All other minerals except 'minor minerals' as defined in Section 3 of the Minerals Concession Rules, 1949.
2. Aluminium and other non-ferrous metals not included in Schedule A.

3. Machine tools.
4. Ferro-alloys and tool steels.
5. Basic and intermediate products required by chemical industries such as the manufacture of drugs, dyestuffs and plastics.
6. Antibiotics and other essential drugs.
7. Fertilizers.
8. Synthetic rubber.
9. Carbonisation of coal.
10. Chemicals pulp.
11. Road transport.
12. Sea transport. □

Annexure III

LIST OF DIVISIONS IN THE PLANNING COMMISSION

1. Agriculture, Rural Development and Cooperation
2. Industry and Mineral
3. Irrigation and Command Area Development
4. Power and Energy
5. Transport
6. Village and Small Industries
7. Housing Urban Development and Water Supply
8. Health and Family Welfare
9. Communication and Information and Broadcasting
10. Education
11. Project Appraisal
12. Science and Technology
13. Backward Classes
14. Labour, Employment and Manpower
15. Economic Division
16. Monitoring Division
17. Multi-level Planning
18. Perspective Planning
19. Plan Coordination
20. State Plan
21. Social Welfare
22. Statistics and Surveys
23. Administration and General.

Annexure IV

MAJOR SHORTCOMINGS REVEALED BY THE EXAMINATION OF PLANNING PROCESS IN 1977

The successive five year plans tended to assume higher levels of savings and investment in real terms, and consequently, a much higher rate of growth than was warranted by objective considerations. As a result, there has been a growing gap between plan projections and actual achievements in all sectors of economy.

The plans could not make any allowance for fluctuations in agricultural output within the plan, nor was there a machinery for adjustment of the plans to unforeseen external events. The consequence of both first and second was that the third, fourth and fifth Five Year Plans were disrupted by inflationary crises and the unplanned cuts in developmental outlay necessitated thereby, resulted in disruption of plan priorities.

The planning process provided for one mid-term appraisal only and the corrections made in the course of such a review proved to be inadequate. Thus, if demand or supply in one sector did not develop according to anticipation, the necessary changes in other related sectors were not made adequately in time.

Towards the latter part of the plan period in a fixed five year plan the time horizon was too short for investment decisions in many sectors.

The plans were based on models which provided for theoretical inter-sectoral consistency for the terminal year of the 5-year period, and the likely imbalances that might arise from year to year were not provided for.

Given the character of the mixed economy, planning of the large self-employed sector in agriculture, household industry and services was minimal. The private corporate sector could be given incentives or regulated, but targets were only indicative since firm production and investment plans were initiated by the sector itself. Some correction of targets is, therefore, inherent in the system. In addition, in the past there were major slippages even in the public sector plans where targets were set. □

BIBLIOGRAPHY

1. *First Five Year Plan*, Planning Commission, New Delhi, 1952.
2. *Second Five Year Plan*, Planning Commission, New Delhi, 1956.
3. *Third Five Year Plan*, Planning Commission, New Delhi, 1962.
4. *Fourth Five Year Plan*, Planning Commission, New Delhi, 1971.
5. *Fifth Five Year Plan*, Planning Commission, New Delhi, 1976.
6. *Sixth Five Year Plan*, Planning Commission, New Delhi, 1981.
7. A.H. Hanson, *Process of Planning : A Study of India's Five Year Plans (1950-1964)*, Oxford University Press, London, 1966.
8. P.B. Desai, *Planning in India*, Vikas Publications, New Delhi, 1979.
9. Tarlok Singh, *India's Development Experience*, MacMillan, (India) Delhi, 1974.
10. D. P. Dhar, *Planning and Social Change*, Hieneman Publishers (India), New Delhi, 1976.
11. *The Planning Process*, Planning Commission, New Delhi, 1975.
12. J.B. Kripalani, *Planning*, Praja Socialist Party, New Delhi, 1957.
13. *Planning and Development : India—Speeches of Jawaharlal Nehru (1952-56)*, Publications Division, Government of India, New Delhi, 1956.
14. D.R. Gadgil, *Planning and Economic Policy in India*, Gokhale Institute of Politics and Economics, Poona, 1961.
15. Jagdish Bhagwati and Sukhamay Chakravorty, *Contribution to Indian Economic Analysis: A Survey*, Lalwani Publishing House, Bombay, 1971.
16. C.N. Vakil and P.R. Brahamananda, *Planning for Shortage Economy: The Indian Experiment*. Vora and Co., Bombay, 1952.
17. A.K. Dasgupta, *Planning and Economic Growth*, George Allen and Unwin, London, 1965.
18. *Basic Statistics Relating to Indian Economy (1951 to 1975-76)*; Central Statistical Organisation, Department of Statistics, Ministry of Planning, New Delhi, 1977.
19. Alber O. Hirshman, *Development Projects Observed*, The Brookings Institution, Washington, 1967.
20. John A. King, *Economic Development Projects and Their Appraisal*, The John Hopking Press, Baltimore, 1967.
21. Square and Van der Tak, The *Economic Analysis of Projects*, The World Bank, Washington.
22. Ian M. D. Little and James A. Mirrleis *Social Cost Benefit Analysis, Volume I of Manual of Industrial Project Analysis in Developing Countries*, Development Centre of the Organisation for Economic Cooperation and Development, Paris, 1969.
23. Ian M.D. Little and James A. Mirrlees, *Project Appraisal and Planning for Developing Countries*, Hienaman Publishers (India), New Delhi, 1974.

24. Deepak Lal, *Methods of Project Analysis: A Review*, The World Bank, Washington, 1974.
25. *Guidelines for Project Evaluation*, United Nations Industrial Development Organisation, New York, 1972.
26. E.J. Mishan, *Cost Benefit Analysis*, George Allen and Unwin Ltd., London, 1971.
27. A.R. Prest and Turveyr, *Cost Benefit Analysis: A Survey*, In Surveys of Economic Theory, Vol. 3, Resource Allocation, edited by the American Economic Association and the Royal Economic Society, New York, St. Martin's Press, 1966.
28. A.J. Meritt and Allen Sykes, *Financial Analysis of Captial Projects*, Longman, London, 1963.
29. *A Guide to the Economic Appraisal of Projects in Developing Countries*, Ministry of Overseas Development, Her Majesty's Stationery Office, London, 1977.
30. *Guidelines for Capital Project Appraisal*, Agency for International Development, U.S., Washington.
31. *Guidelines for Preparation of Feasibility Reports for Industrial Projects*, Project Appraisal Division, Planning Commission, Government of India, New Delhi, 1975. □